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## Notice for Users in the USA

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### FCC Statement

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WARNING - FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the distance between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

A shielded I/F cable and included cables with ferrite cores are required to insure compliance with FCC regulation for Class B computing equipment.

\* As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

### Declaration of Conformity

SHARP PERSONAL COMPUTER, PC-A810 Series

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: SHARP ELECTRONICS CORPORATION  
Sharp Plaza, Mahwah, New Jersey 07430-2135  
TEL: 1-800-BE-SHARP

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## About the Modem

This equipment complies with Part 68 of FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The modem jack of this equipment complies with Sub-part F of Part 68 of FCC rules.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs contact the telephone company to determine the maximum REN for the calling areas.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact Sharp Electronics Corp. for repair and (or) warranty information (Refer to the end of this section). If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

The equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information.)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.) To program this information, refer to the manual of the communication software.

**CAUTION:** DISCONNECT TELEPHONE LINES BEFORE ACCESSING THE MODEM CARD.

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### **Copyright**

It is the intent of Sharp that this product be used in full compliance with the copyright laws of the United States and that prior permission be obtained from copyright owners whenever necessary.

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### **Product Information and Customer Assistance**

For Product Information and Customer Assistance:

**Call:** 1-800-BE-SHARP (237-4277)

**Sharp Electronics Corp.**

Sharp Plaza, Mahwah, NJ 07430-2135

Home Page: <http://www.sharp-usa.com>

E-mail address: [pcsupport@sharpsec.com](mailto:pcsupport@sharpsec.com)

CompuServe: Go Sharp

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## Notice for Users in Europe

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This equipment complies with the requirements of Directives 89/336/EEC and 73/23/EEC as amended by 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ένωσης 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som komplette ras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

## **CAUTION:**

TO PREVENT ELECTRICAL SHOCK, DISCONNECT THE AC CORD AND THE BATTERY BEFORE SERVICING.

### **CAUTION:**

FOR A COMPLETE ELECTRICAL DISCONNECTION, PULL OUT THE MAIN PLUG AND THE BATTERY.

### **VORSICHT:**

UM DIE STROMZUFUHR VOLLSTÄNDIG ZU UNTERBRECHEN, DEN NETZSTECKER HERAUSZIEHEN UND DIE BATTERIE ENTFERNEN.

### **ATTENTION:**

POUR UN ARRET TOTAL DU SYSTEME, DECONNECTEZ LA PRISE DE COURANT SECTEUR ET LA BATTERIE.

### **VARNING:**

FÖR TOTAL ELEKTRISK URKOPPLING, KOPPLA UR KONTAKTEN OCH TA UR BATTERIET.

### **PRECAUCION:**

PARA UNA COMPLETA DESCONEXION ELECTRICA DESENCHUFE LA CLAVIJA DE LA RED Y LA BATERIA.

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## Safety Precautions

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### General

- Follow all cautions and instructions which may be marked on the computer.
- Except as described elsewhere in this manual, refer all servicing to qualified personnel. Immediately shut off the computer and seek servicing under the following conditions:
  - when the power cord or plug is damaged or frayed
  - if liquid has been spilled on the computer
  - if the computer has been dropped or the cabinet has been damaged

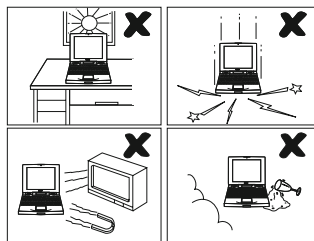
### Location

- Do not expose the computer to direct sunlight.
- Try to avoid dusty environments.
- Keep the computer away from any magnetic devices and TVs.
- Keep the computer away from excessive humidity or fluids such as rain, snow, water spray, juice, coffee, steam, etc.
- Do not move the computer from an extremely cold place to an extremely warm place. A temperature difference of more than 10°C (18°F) will cause condensation inside the unit, which may cause damage.
- Do not block or cover slots or openings on the cabinet. These protect the computer from overheating.
- Care should be exercised when using on heat sensitive surfaces or your lap as the base of this computer will get hot.
- Do not smoke near your computer.

### Usage

- Never push any objects of any kind into cabinet openings. They may touch dangerous voltage points or short parts that could result in fire or electrical shock.
- Turn off the computer before installing or removing a peripheral device (except when connecting USB devices and PC cards).
- Check the AC power cord and power connectors periodically for damage. Replace the power cord immediately if damage is found.
- Never subject your computer to sudden shocks or extreme vibration.

- Do not drop the computer nor hit it with other equipment.
- Do not scratch the surface of the LCD screen.
- Turn off the computer and disconnect the AC power cord before cleaning.




---

## Battery Pack Precautions

### Handling

- Never put the battery pack in a fire, as it could explode and cause injury.
- Do not attempt to open or alter the battery pack.
- Do not place the battery where it might get hotter than 60°C (140°F).
- Do not allow metal objects such as jewelry to short across the battery terminals, as it could heat up and explode.
- Do not allow liquids to come in contact with the battery pack.
- Avoid dropping the pack or other violent shock.
- Do not solder anything to the battery terminals.

### Charging

- Charge the battery pack only with the AC adapter included with your computer or an optional one.

### Discharging

- Do not use the battery pack for any purpose other than powering the computer.

### Storage

- Store the battery pack in a cool and dry place. Never allow the temperature to exceed 60°C (140°F) during storage.
- Recharge the battery pack after storage, before use.

---

## **Modem Precautions**

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using the telephone during a lightning storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak while in the vicinity of the leak.



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## About This Manual

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### Notice

Information in this manual is subject to change without notice and does not represent a commitment on the part of SHARP Corporation.

SHARP Corporation shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

SHARP strongly recommends that separate permanent written records be kept of all important data. Data may be lost or altered in virtually any electronic memory product under certain circumstances. Therefore, SHARP assumes no responsibility for data lost or otherwise rendered unusable whether as a result of improper use, repairs, defects, battery replacement, use after the specified battery life has expired, or any other causes.

SHARP assumes no responsibility directly or indirectly, for financial losses or claims from third persons resulting from the use of this product and any of its functions, such as stolen credit card numbers, the loss of or alteration of stored data, etc.

### Edition

1st Edition, February 2000.

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## Recording Important Information

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For future reference, please record the following information in the spaces provided below.

**Model Number:**

**Serial Number:**

**Date of purchase:**

**Dealer's Name:**

**Place of purchase:**

**Password:**

The serial number is printed on a sticker located on the bottom of the computer.

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## Manual Conventions

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This manual uses a set of style conventions described below.

**Notes and Cautions** are italicized with icons:



*A note icon informs you of a special technique or information that may help you perform a task or better understand a process.*



*A caution icon alerts you to something that may cause problems or damage to hardware, software or data.*

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**Key Labels on the Keyboard**, when referred to in the instructions, are shown in boldface:

Press **Enter** to continue.

When two or more keys are pressed simultaneously, the key labels are separated by a plus (+) sign:

Restart your computer by pressing **Ctrl+Alt+Delete**.

When necessary, important key combinations are shown in graphics:



**Sample Entries** are shown in upper cases of different typeface. In the following case, press the Enter key after you type the command:

C:\>DIR A: **Enter**

**Words/Texts on Screen**, such as window titles or possible parameters, are italicized:

Double-click this icon to display the *Power Properties* window.

Set the item to *Enabled*.

**Screens** reproduced in this manual may differ slightly from the screens you see on your computer.

**Section Titles** in other parts of this manual are italicized:

Refer to *Infrared Communication* section in Chapter 5.

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# Overview of Computer

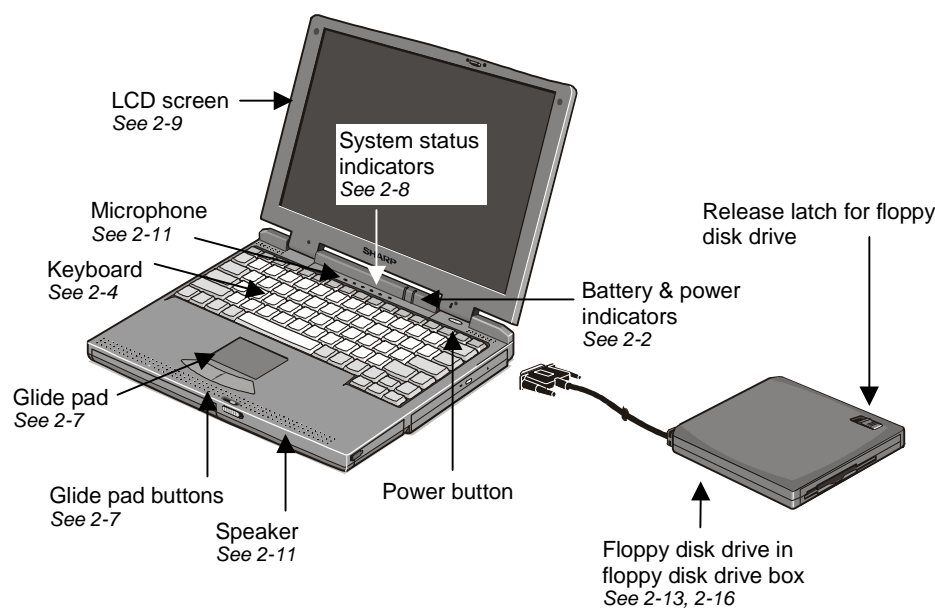
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In the following diagram, the labels in *italics* refer to the chapter and page number in this manual where you can find more information. The actual appearance of your computer may be slightly different depending on the model.

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## Front View

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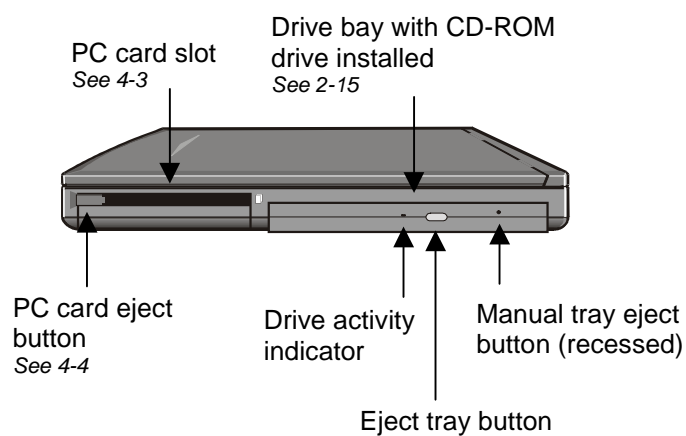
## Front View Markings

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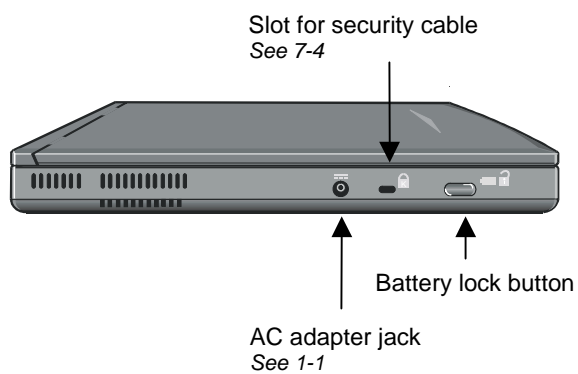
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## Right Side View



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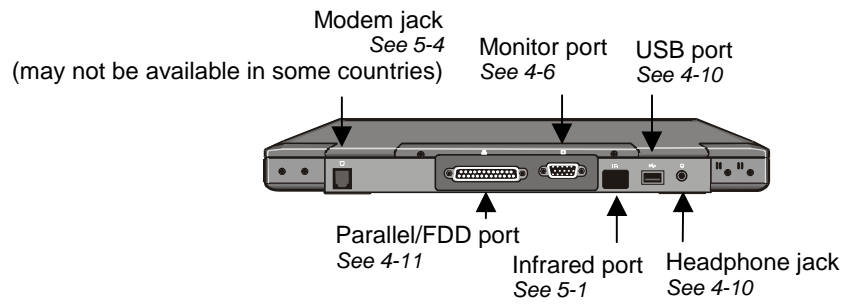
## Left Side View





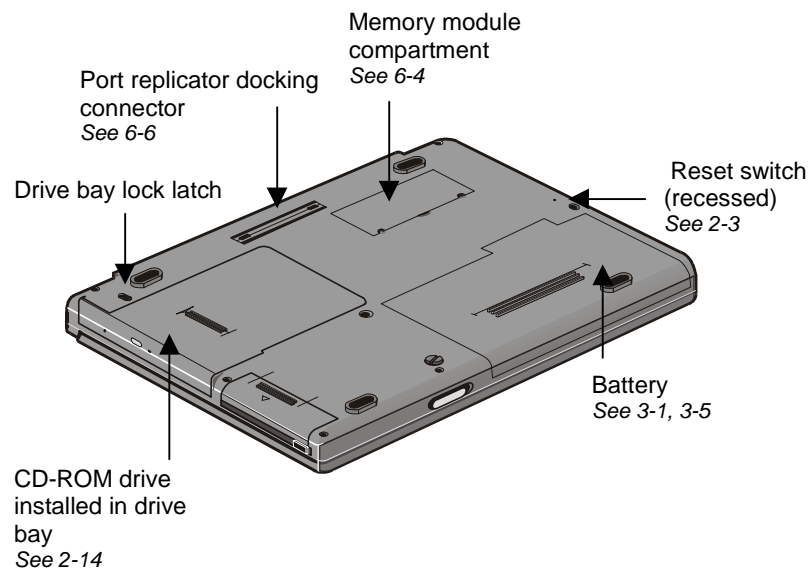
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## Rear View



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## Bottom View



## Fast Start

Your new computer is ready to use as soon as you unpack it from the box. If you're familiar with computers, follow the instructions in this chapter to get your system up and running in just a few minutes. If this is your first computer, you should read through the entire Operation Manual before starting the system.

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### Connecting AC Power

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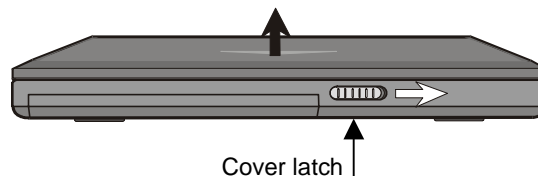
*Run your computer the first time using AC power, rather than battery power. This ensures that you will not lose power while you complete the Windows setup operation.*



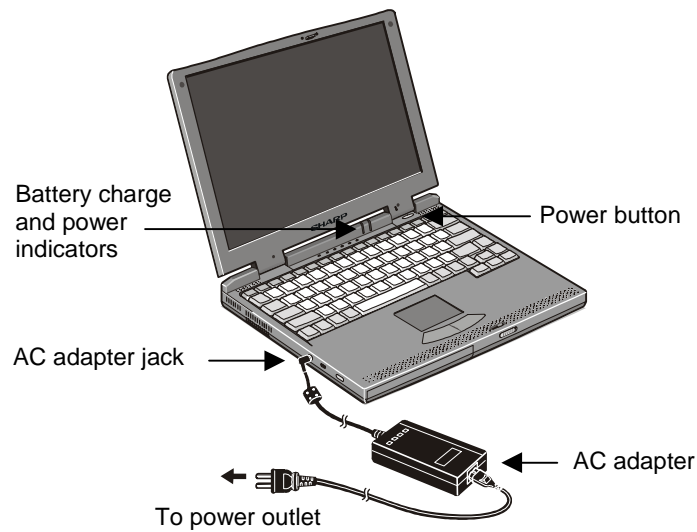
- *Use only the AC adapter that was supplied with your computer, or supplied by your computer vendor. You can damage your computer if you try to use an AC adapter that is not approved for use with this system.*
- *When removing the AC power cord from a wall outlet, grip the plug and pull it from the socket. Never remove the power cord from the outlet by pulling on the cord. Always grip the plug.*

Place your computer on a flat working surface and follow the steps below.

1. On the front edge of the computer, slide the cover latch to the right and raise the cover.



2. Plug the cable from the AC adapter into the AC adapter jack on the left side of the computer.
3. Connect the power cord to the AC adapter.
4. Plug the power cord into a suitable power outlet. The orange battery charge indicator turns on when you connect AC power.



5. Press the power button located just above the Pause button on the keyboard. The green power indicator turns on when the power is turned on.
6. After a logo screen and several seconds of power-on testing, the computer loads the Windows 98 operating system.
7. As this is the first time you have used your computer, Windows begins by running the *Windows 98 Setup Wizard*.

---

## Setting Up Windows 98

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Windows 98 is pre-installed on your computer, including the special drivers and software used by built-in components such as the audio and video system, the modem, and the PC card slot. The Windows Setup program lets you enter personal data such as your name, the date and time in your location, and so on. It takes just a few minutes to complete. The setup process has four steps:

- Getting started  
This section asks for your name.
- Registration  
This section configures your modem
- Windows License  
This section asks you to accept the Windows License Agreement and to enter the Windows Product Key
- Final Settings  
This section checks the date and time in your location, and then completes the configuration of your system



*Once you start the system for the first time, be sure to complete the setup program. Windows does not display the Setup Wizard the next time you turn on the computer.*

---

### About Windows Properties Dialog Boxes

In this manual you are often asked to open a *Component Properties* dialog box, such as the *Modem Properties* dialog box, or the *Display Properties* dialog box. These dialog boxes let you make changes to the configuration and operation of the component by clicking check boxes or selecting radio buttons. To open a Property dialog box, click the *Start* button in the taskbar at the foot of the Windows display. Select *Settings - Control Panel*. In the Control Panel window, double-click on an icon to display a Properties dialog box, or similar window, for the component or feature represented by that icon. Some of the Properties dialog boxes that are used to configure components in your computer include:

- Display
- Modem
- Mouse

- PC Card
- Power Management
- System

---

## Turning Off Your Computer

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When you're finished using your computer, turn it off with the following steps:

1. Click the *Start* button in the taskbar and click on *Shut Down* from the Start menu.
2. In the *Shut Down Windows* dialog box, check the *Shut down* item and then click the *OK* button. The power indicator turns off.
3. Close the cover to keep the screen and keyboard clean and protected.

You can shut down the computer with the power button using the steps below:

1. From the *Start* menu, select *Settings – Control Panel* and double-click the *Power Management* icon.
2. In the *Power Management Properties* dialog box, click the *Advanced* tab.
3. Select *Shutdown* in the drop down menu for “*When I press the power button on my computer*”, and then click *Apply* and *OK*.



*If you have not saved a file, a dialog box appears prompting you to save the file.*



- *Don't turn off your computer if status indicators show that the computer is still accessing data on the hard disk drive, the floppy disk drive or the CD-ROM drive. Data may be lost or damaged.*
- *After turning off the computer wait at least five seconds before turning the computer back on. Turning the computer off and on without a pause can damage the system.*

---

Since this is your first session using the computer, it's a good idea to leave the AC adapter connected to the computer until the internal battery is fully charged. The orange battery charge indicator changes to green when the battery is fully charged.

## **CHAPTER 2**

### *Basic Operations*

2

This chapter describes some of the basic operations of your computer such as using the keyboard, adjusting the display, and so on.

---

### **Powering the Computer**

---

You can operate your computer by using the AC adapter to connect to a suitable power outlet. You can also power the computer by the internal Lithium-Ion battery.



Whenever you use the AC adapter to power the computer, the internal battery automatically begins recharging. Recharging continues whether the computer is turned on or off.

Refer to *Chapter 3 Battery and Power Management* for a full description of battery charging and related information.

## Power and Battery Indicators

For proper operations it is important to understand the operation of the power and battery indicators located beside the right-side hinge of the upper cover.

### Indicator Meanings

Green Power Indicator		
Icon	Lamp State	Status
	Turned on	Computer is turned on
	Turned off	Computer is turned off
	Slow blinking	Computer is in Standby mode
Tri-color (green/red/orange) Battery Indicator		
Icon	Lamp State	Status
	Turned on orange	Battery is charging
	Turned on green	Battery is fully charged
	Turned on red	Battery low warning
	Flashing red	Critical battery warning
	Flashing orange	Abnormal condition – for example the battery may be installed incorrectly

---

## Resetting the System

---

You may need to reset the system after adding hardware or software so that your computer recognizes newly installed devices or software. When the message appears after the installation, click *OK*, *Yes*, etc., to restart Windows 98.

You can also restart Windows 98 from the *Start* menu. Select *Shut Down*, then *Restart*.

---

### Warm Boot (Software Reset)

If the system is locked up because of a software problem, you can reset or reboot the system by pressing the **Ctrl+Alt+Del** keys simultaneously. Press the **Ctrl+Alt+Del** keys again to restart the computer.



*Resetting may cause data loss. Use the software reset only if the normal Windows 98 Shut Down does not work because of software malfunction. Although resetting does not damage the system, you may lose the data you are processing.*

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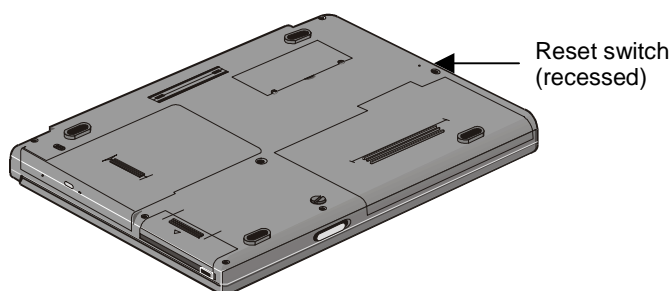
### Power Switch

You can turn off the computer with the power switch if the system has hardware or software problems so that you can't use the Windows *Shut Down* command or the software reset. In this case, you need to hold the power button down for more than four seconds.

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### Reset Switch

If all other methods fail, you can reset the computer by pressing the hardware reset switch. The hardware reset switch is in a recessed location on the base of the computer. Activate the switch with a straightened paper clip or similar implement.

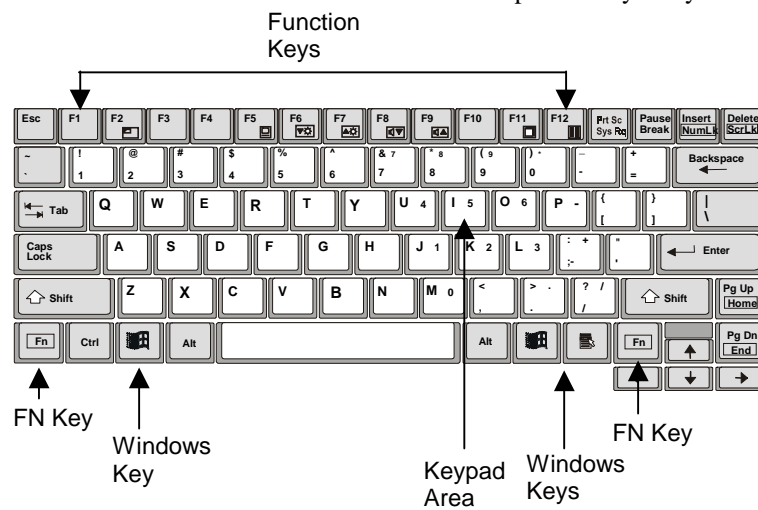




## Using the Keyboard

The built-in keyboard includes all the functions that you find on a full-sized keyboard. In addition, the keyboard has built-in hot keys that you can use to control some of the functions of the computer.

The illustration below shows the location of some important keys on your keyboard.



### Function Keys

On their own, the operation of the function keys is usually determined by the software application that you are running. In combination with the **Fn** key they create hot-keys that you can use to control some of the computer functions. Icons embossed on the function key keycaps indicate the hot-key function.

### Embedded Keypad

The numeric keypad is embedded in some of the right-side alphanumeric keys. The keypad functions are embossed in the upper right corner of the keypad keycaps. You activate the embedded numeric keypad by pressing the **Num Lk** key (press **Fn+Insert**). Repeat the keystroke to turn off the embedded keypad.

## Windows Keys

There are two different Windows keys as shown below. The keyboard repeats the Windows Start key on either side of the Space bar.



Windows Start Key. This key opens the Windows Start menu on the taskbar. In combination with other keys it provides short cuts to some Windows functions. See Windows help for more information.



Windows Pull-down Menu key. When an item is selected and this key is pressed, it pulls down a menu if one is available. It is similar to the right click of a mouse or glide pad.

## Fn (Function) Key Combinations

You can activate hot-key system controls and various embedded keystrokes by holding down one of the two **Fn** keys and then pressing any of the keys embossed with an icon or boxed text on the lower half of the key.



+



Pops up an information box in the upper left corner of the screen – see the section *Pop Up Power Management Information Box* below



+



Switch display between the built-in screen, an external monitor, and a simultaneous display – see *Chapter 4 Connecting Peripherals*



+



Press keys to decrease screen brightness – see *Adjusting the Display* below



+



Press keys to increase screen brightness – see *Adjusting the Display* below



+



Press keys to decrease the audio volume – see *Controlling the Audio* below



+



Press keys to increase the audio volume – see *Controlling the Audio* below



+













Turns off the display backlight on the built-in screen – see *Adjusting the Display* below



+



Puts the system into suspend mode – see *About Standby Mode* in *Chapter 3*.

	+		Returns the Sys Request keystroke
	+		Returns the Num Lock keystroke – activates the embedded numeric keypad
	+		Returns the Scroll Lock keystroke
	+		Returns the Home keystroke
	+		Returns the End keystroke

### Pop-Up Power Management Information Box

When you hold down the **Fn** key and press the **F2** function key, a pop-up information box appears for about five seconds in the top left corner of the display. The information box has the following information:

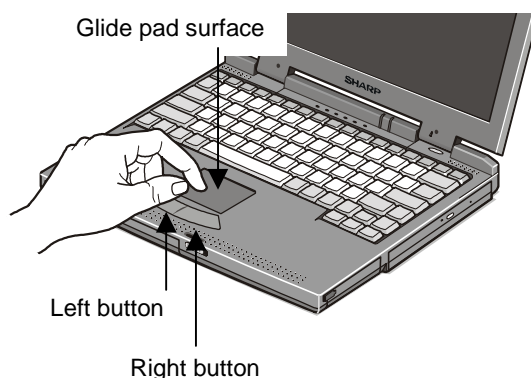
<b>BATT</b>	Shows remaining battery capacity as a percentage	
<b>PM</b>	Shows status of the power management setting in the setup utility	
	OFF	Power management is disabled
	ON	Power management is enabled
	DC	Power management is enabled only when using battery power
<b>AC</b>	Shows if the AC adapter is connected or not	
	OFF	AC adapter is disconnected
	ON	AC adapter is connected
<b>BIOS</b>	Shows BIOS version number	

---

## Using the Glide Pad

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Your computer has a built-in pointing device called a glide pad. The glide pad consists of the glide pad surface, a left button and a right button.



---

### Using the Glide Pad

When you slide your finger across the glide pad surface, the pointer on the screen moves in the same direction as your fingertip.

#### Clicking and double-clicking

To click or double-click objects, you can use the left button, just as you do when using a mouse. You can also emulate a left button click or double-click by tapping once or twice with your fingertip on the glide pad surface. Clicking the right button pulls down a menu if one is available. This is the same function as the right click of a mouse.

#### Drag and Drop

You can drag and drop objects on the Windows desktop as follows:

1. Position the pointer over the object.
2. Press and hold down the left button.
3. Drag the object by moving your fingertip over the glide pad surface.
4. Drop the object into place by releasing the left button.








- *Do not use a pointed object, such as a pen or pencil to operate the glide pad. You might scratch or damage the surface.*
- *Do not operate the glide pad with a moist finger. This may cause the glide pad to operate incorrectly.*

## Changing the Glide Pad Configuration

You can change the way the glide pad operates in the *Mouse Properties* window. From Windows *Start* menu, select *Settings - Control Panel* and double-click *Mouse* to open up the *Mouse Properties* window. Click on any of the tabs; Buttons, Pointers or Motion. Use the checkboxes, drop down menus, and so on, to configure the glide pad so that it operates to your satisfaction.

## Reading the Status Indicators

As well as the Power and Battery Charge indicators discussed before, your computer has five more status indicators located above the keyboard between the hinges of the upper cover. The indicators are identified by icons printed above each lamp.

Indicator Icon	System Status
	This indicator turns on when your computer is reading or writing to the hard disk drive or a CD in the CD-ROM drive.
	This indicator turns on when your computer is reading or writing to a disk in the floppy disk drive.
	This indicator turns on when the Num Lock key has been pressed and the embedded numeric keypad is activated.
	This indicator turns on when the Caps Lock key has been pressed and the keyboard is in Caps Lock mode.
	This indicator turns on when the Scroll Lock key has been pressed and the cursor arrow keys are in scroll lock mode.

---

## Adjusting the Display

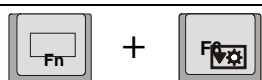
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The most important adjustment you can make to the display is to set it to the best viewing angle. The display contrast decreases if you look at it from a wide angle above or below, or from side to side.

---

### Changing the Brightness

Change the screen brightness by using the **Fn+F6** and **Fn+F7** hot keys.



Press keys to decrease screen brightness



Press keys to increase screen brightness

---

When you press the screen brightness hot keys to adjust the display, a pop-up screen brightness meter appears in the upper left corner of the display. You can use the pop-up meter as a visual guide to set the screen brightness.

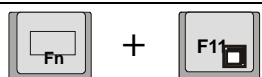


*Decreasing the screen brightness is an effective way of reducing the power consumption of your computer when you are operating the computer on battery power.*

---

### Turning off the Display

You might want to turn off the display when you are not using your computer for short periods. This can help reduce power consumption. Use the display power down hot keys **Fn+F11**.



Turns off the display on the built-in screen

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You can turn the display back on by pressing any key on the keyboard.

---

## Changing the Display Properties

The Windows *Display Properties* window lets you make many different kinds of changes to the appearance of the screen under Windows.

Place the screen pointer on any empty area of the Windows desktop and click the right glide pad button to pull down a menu. Click on *Properties* to open the *Display Properties* window. Use the tabs on the *Display Properties* window to make adjustments to the following display properties; Background, Screen Saver, Appearance, Effects, Web, and Settings.

### Using the Settings Tab

The Settings tab lets you make changes to the resolution and color depth of the display.

The standard display setting for your computer is a resolution of 1024 x 768 pixels. If you select a smaller resolution, the image on the built-in display will stretch to occupy the whole screen. This might cause the image to be somewhat deformed. If you select a larger resolution, the display will extend beyond the edges of the built-in screen. You can scroll the enlarged display by moving the screen pointer to the edges of the display.

The standard color depth for your computer is High Color (16bit). You might need to change down to a lower color depth in order to run some computer programs or games.

---

## Advanced Settings and Switching the Display

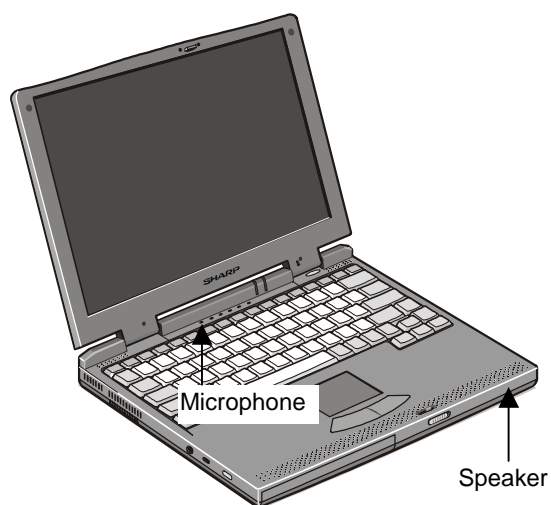
Your computer has hot keys to switch the display when you are connected to an external monitor. In the *Display Properties* window, the *Advanced* settings button in the *Settings* tab window has other options for switching the display including a dual independent display that lets you run separate applications on the built-in screen and an external monitor. Turn to *Connecting an External Monitor* in *Chapter 4* for more information on this topic.

---





## Controlling Audio

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Your computer is installed with a built-in speaker and a built-in microphone. You can use Windows *Entertainment Accessories* to play CDs, record messages and sound, play computer games with sound tracks, and so on.



You can control the audio volume by using the audio hot keys **Fn+F8** and **Fn+F9**.

	+		Press keys to decrease the audio volume
	+		Press keys to increase the audio volume

You can use the Windows volume control meter to visually judge the audio level setting.



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## Using the Drives

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Your computer has three different drives; the internal hard disk drive, the CD-ROM drive module, and the floppy disk drive module. The CD-ROM and floppy disk drive modules can be installed in the drive bay on the right side of the computer. If you want to use the CD-ROM and the floppy disk drive at the same time, you can install the CD-ROM drive in the drive bay, and use the floppy disk drive as an external component connected to your computer through the parallel/FDD port on the back of the computer. The floppy disk drive has an optional box that protects the drive when it is used externally.

### Drive Properties

You can learn about the properties of the drives by double-clicking the *My Computer* icon on the Windows desktop. In the *My Computer* window, right click on any of the drives and select *Properties* from the drop down menu to display the capacity of the drive, and other information.

---

### Hard disk drive

Your computer has a high-capacity hard disk drive installed internally. Your computer identifies the hard disk drive as drive C:. The hard disk is pre-installed with the Windows 98 operating system and the software and drivers required to run all the components of your computer.

When you install software applications and use them to create files and documents, you store them in folders on the hard disk drive. You can use Windows *Explorer* to create new folders and sub-folders and navigate and maintain the folders and files that are stored on the hard disk.

If your hard disk drive ever gets corrupted, you can use the Recovery CD to recreate the state of the hard disk drive when it was first shipped. However, you will lose any files that you have subsequently created unless you have backed them up to another storage device.



*For information on using the Recovery CD see Using the Recovery CD in Chapter 6.*

---

**CD-ROM drive**

The CD-ROM drive lets you read information from CDs. Your computer identifies the CD-ROM as drive R: and it is a read-only drive. You cannot write information to CD-ROMs. Many software applications and reference works are shipped on CDs because they store over 600 MB of data.

Using Windows *Entertainment Accessories*, you can also use the CD-ROM drive to play CD-Audio disks and Video CD disks.

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**Floppy Disk Drive**

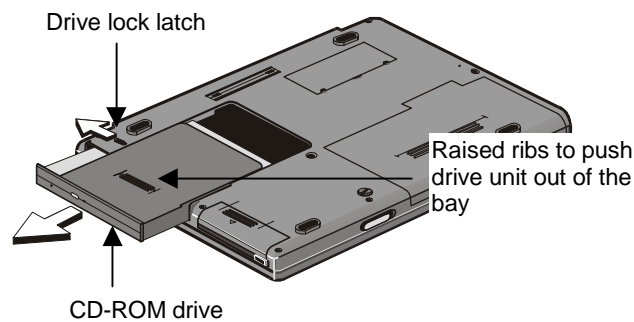
The floppy disk drive is a useful tool because practically all computers can read and write to 3.5-inch floppy disks with a storage capacity of 720K or 1.44 MB. Your computer identifies the floppy disk drive as drive A:.

When you need to store a file, or transfer a file to a friend or colleague's computer, it's very convenient to use a floppy disk.

## Installing a Drive in the Drive Bay

The drive bay on the right side of your computer can be installed with a CD-ROM drive or a floppy disk drive. Change the drives in the bay by following the steps below.

1. Remove any floppy disks or CD-ROMs from the drive that is currently installed in the drive bay.
2. Shut down your computer and disconnect the AC adapter if it's connected. Close the upper cover of the computer.
3. Turn the computer over and locate the drive bay lock latch. Slide the latch towards the rear edge of the computer and hold.



4. Slide the drive out by pushing on the raised ribs on the bottom of the drive. You can release the lock latch once the drive is partly removed from the drive bay. Pull the drive all the way out of the drive bay.
5. Position the replacement drive correctly and insert it into the drive bay. Push it all the way in so that you feel the connector on the rear edge of the drive engage with the connector inside the bay. Verify that the drive lock latch is in the locked position.
6. Turn your computer over, open the upper cover, and restart the system. Your computer automatically registers and configures the new drive.

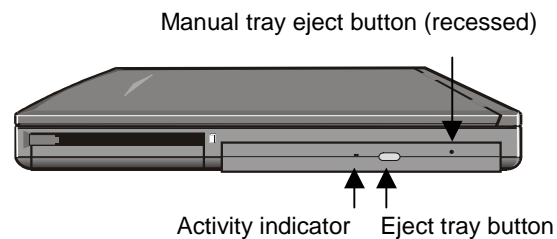
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## Using the CD-ROM Drive

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If the CD-ROM drive is installed in the drive bay, use it as follows.

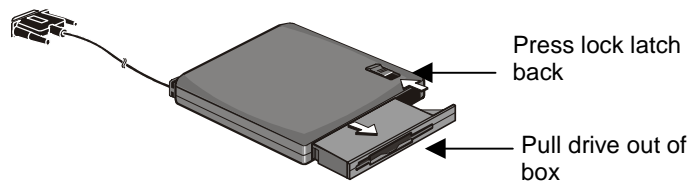
1. Locate and identify the three features on the front of the CD-ROM drive; the eject tray button, the recessed mechanical eject button, and the drive activity indicator.



2. Press the eject tray button to eject the tray for the CD-ROM disk.
3. Place the CD on the tray so that the central hole in the CD fits over the spindle in the disk tray. Don't apply excess downward force on the disk tray.
4. Press the tray back into the CD-ROM drive until it clicks closed.
5. To remove a CD, wait until the activity indicator shows that the disk in the drive is not being read. Press the eject tray button and remove the disk from the tray.
6. If you need to remove a CD from the drive while the computer is turned off, or while the drive module is removed from the computer, insert the end of a paper clip, or similar utensil, into the manual tray eject button. This unlocks the tray and lets you pull the tray all the way open to remove the CD.

## Using the Floppy Disk Drive Externally

To remove the floppy disk drive from the optional floppy disk drive box (CE-FC01), press the lock latch on the top edge of the cover and pull the floppy disk drive out of the box.



To use the floppy disk drive as an external drive, follow the steps below:

1. Install the floppy disk drive into the floppy disk drive box. Simply slide the drive in until it clicks into place.
2. Shut down your computer.
3. Plug the cable from the floppy disk drive box into the parallel/FDD port on the rear edge of the computer.
4. Restart your computer.

## **CHAPTER 3**

# *Battery and Power Management*

This chapter explains how to charge your computer's internal battery and keep it in good condition. It also explains how you can use the power management features to maximize battery life while operating under battery power.

3

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### **Battery Pack**

---

The removable battery pack is installed in the base of the computer. If you have an optional spare battery pack (Model CE-BL08) you can double the operating time of your computer when there is no AC power available.

The length of time you can run your computer using a fully-charged battery pack is variable. If you are using applications that make heavy use of peripheral items such as the hard disk drive or the CD-ROM drive, the battery discharges in a shorter time. If your battery is older and has already been through many cycles of charging and discharging, it stores less charge. Finally, the temperature and environment can influence battery life.

After you have operated your computer using battery power only, you will have a good idea of how long it takes a fully-charged battery to discharge. Use this time as a standard. If the battery begins discharging in a significantly shorter time, and you are not using your computer in a different manner, or have not changed the power management settings, it may indicate a battery problem.



---

*After repeated cycles of charging and discharging, all batteries store less charge. Expect a gradual decrease in battery life after a few hundred cycles of charging and discharging. When battery life becomes too short, you can purchase a replacement battery pack (Model CE-BL08).*

---

### Battery Charging

The battery pack begins charging anytime your computer is connected to AC power using the AC adapter.

If the battery pack is fully discharged and your computer is turned off or in standby mode, the battery pack fully recharges in about 2 hours.

If the battery pack is fully discharged and your computer is turned on, the battery pack fully recharges in about 4 hours.

3



*Your computer monitors the internal temperature of the unit. If the unit gets critically hot, battery charging (which generates some heat) is interrupted until the temperature decreases. This can account for slightly longer battery charging times.*

You can track the charging status of the battery pack using the battery indicator located next to the power indicator. The battery charge indicator shows the following conditions:

Tri-color (green/red/orange) Battery Indicator		
Icon	Lamp State	Status
	Turned on orange	Battery is charging
	Turned on green	Battery is fully charged
	Turned on red	Battery low warning
	Flashing red	Critical battery warning
	Flashing orange	Abnormal condition – for example the battery may be installed incorrectly

---

## Battery Low Warnings

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The battery low warnings are set using the Windows *Power Management Properties* application. See later in this chapter for a full discussion of this topic.

The *Power Management Properties* application lets you set a Low Battery Alarm and a Critical Battery Alarm. The alarms are triggered when battery charge decreases to a user-defined percentage set in the *Power Management Properties* application.

We recommend that you set the Low Battery alarm to about 10% and the critical battery alarm to about 3-5%. The battery charge percentages are not extremely accurate and the power consumption of different applications are not identical, so it's important to allow for a margin of error. The primary aim is to save your data before the system shuts down when the battery is fully discharged.

---

### Responding to a Low-battery Condition

Following the battery low alarms that you have set, we recommend that you save your work and shut down your computer when there is about 5% of battery charge remaining. In this condition, you can be confident that you have enough power to power the hard disk drive or floppy disk drive and save even the longest of files.

After you have shut down your computer in a low battery condition, don't try to restart the computer until you have replaced the discharged battery with a charged battery pack, or connected the computer to a power outlet using the AC adapter.



---

## Battery Conditioning

---

If you feel that the battery charge meter in Windows is becoming inaccurate, we recommend that you "condition" the battery using the following steps below.



*The following procedure helps to keep your battery in good condition so we suggest that you carry out the procedure each time you complete about 30 cycles of charging and discharging the battery pack.*

3

1. Connect your computer to a power outlet with the AC adapter. Leave the computer connected to the power outlet until the battery indicator turns green to indicate that the battery is fully charged.
2. Turn on the computer.
3. When the Sharp logo appears with the prompt *<ESC> for diagnostic screen, <F2> for Setup*, press **F2** to enter the setup utility.
4. In the *Power* page of the setup utility, highlight the item *PM Control*. Press the **Space bar** to change the value of this item to *Disabled*.
5. Go to the *Exit* page of the setup utility, highlight *Exit Saving Changes* and press **Enter**. Press **Enter** again when the dialog asks for confirmation.
6. When the system restarts and the Sharp logo and prompt appear, press **F2** again to enter the setup utility.
7. Disconnect the AC adapter from the computer and leave the computer turned on and the setup utility open until the battery completely discharges and the computer shuts down automatically. This might take as long as 2 hours.
8. Connect the AC adapter to the computer and leave it connected until the battery is fully charged.
9. After you have completed the conditioning procedure, return the power management setting in the setup utility to the original state.

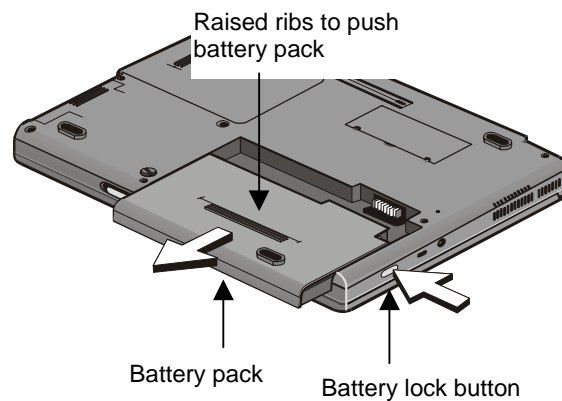
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## Changing a Battery Pack

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The procedure to remove and install a battery pack is as follows:

1. Turn off the computer, close the upper cover and turn the computer over and lay on a soft surface.
2. On the left side of the computer, locate the battery lock button.
3. On the base of the computer, locate the pressure point embossed on the base of the battery pack for pushing it out of the battery compartment.



4. Press and hold down the battery lock button and push on the raised ribs to slide out the battery pack.
5. You can release the battery lock button once the battery pack is partially removed.
6. After the battery pack is completely removed, hold the replacement battery in a horizontal position level with the battery compartment and slide it into place. Guide rails on either side of the compartment, and grooves on the battery pack guide the battery pack into place.
7. Push the battery all the way in so that you feel the battery pack engage with the connector inside the compartment and the battery lock in place.

---

## Programmable Power Management

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Your computer supports ACPI (Advanced Configuration and Power management Interface) which is a powerful feature of the Windows 98 operating system. Therefore you can select and control all the power management of your computer through the Windows *Power Management Properties* application in Windows *Control Panel*.

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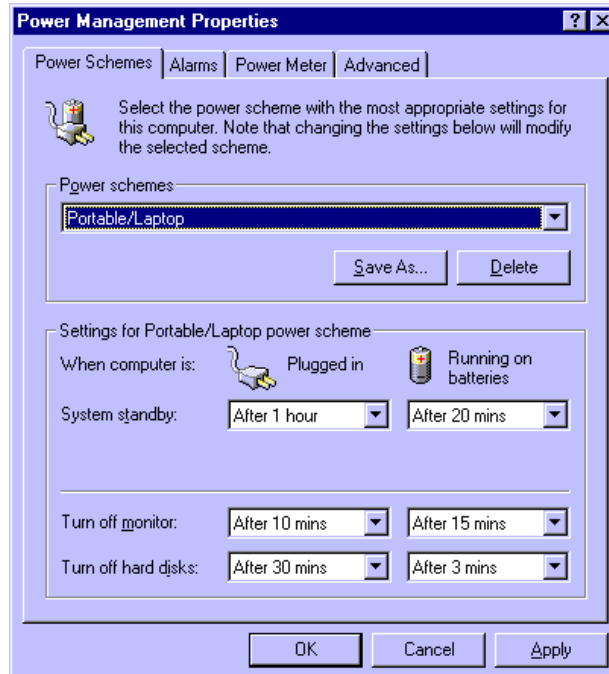


*If you ever run your computer using an operating system that does not have ACPI, you can use the power management features that are built into the system hardware. You can select and control these routines using the setup utility. See Power Page in Chapter 8 for more information.*

---

### Running the Power Management Properties Application

From the *Start* menu, select *Settings - Control Panel*. Double-click the *Power Management* icon to display the *Power Management Properties* window.



---

## Setting Power Schemes

The *Power Management Properties* window opens on the *Power Schemes* tab. You can use this window to create and name different Power Schemes. For each Power Scheme, you can use the drop down menus to set the timeouts for *System standby*, for *Turn off monitor*, and for *Turn off hard disks*.

A timeout defines the length of time a component remains inactive before it is automatically turned off. For example, if you set the *System standby* to 10 minutes, your computer will automatically enter Standby mode if it is inactive for 10 minutes. If you set *Turn off monitor* to 5 minutes, the built-in screen will turn off automatically if there is no video activity for 5 minutes.

You can create one set of timeouts that function when the computer is connected to a power outlet with the AC adapter, and another set of timeouts that function when the computer is running on battery power.

---

## About Standby Mode

Standby mode on your computer is also called Suspend-to-RAM mode. In this mode practically all devices are powered down with the exception of the system memory, the video memory, the PC Card controller and the system realtime clock and stores the current condition of the computer in RAM.

In standby/suspend-to-RAM mode, your system consumes minimal energy. With a full battery pack, your computer can sustain a standby/suspend-to-RAM mode for many hours.

Your computer will enter standby/suspend-to-RAM mode under several sets of conditions as follows:

- The *System standby* timeout in the *Power Management Properties* application elapses.
- The suspend hot keys **Fn+F12** are pressed.
- The upper cover is closed when no external monitor is connected to the computer.
- The power button is pressed – if the power button has been defined as a suspend button using the *Advanced* tab of the *Power Management Properties* application.
- You select *Stand by* in *Shut Down Windows* dialog box.

### Resuming from Standby/suspend-to-RAM Mode

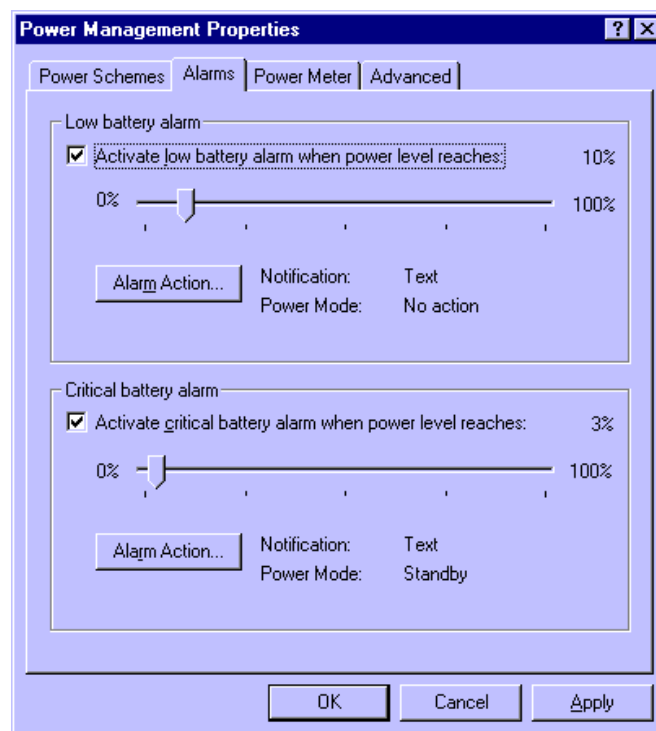
Your computer will resume from a standby/suspend-to-RAM mode under the following conditions:

- The power button is pressed
- Any key on the keyboard is pressed
- An incoming call to the built-in fax/modem, or a PC card modem in the PC card slot, is received

## 3

### Setting Alarms

Click on the *Alarms* tab of the *Power Management Properties* window to display the alarm options.



Use the check boxes to turn the *Low battery alarm* and the *Critical battery alarm* on or off. Use the slider bars to set the percentage of battery charge remaining required to trigger the alarms. Click on the *Alarm Action* button to define the actions that are generated by the alarms.

We recommend that save your work and shut down the system when the battery charge is no less than 5%. Set the alarms for your own convenience so that you can shut down your system in an orderly manner.

---

### **Power Meter**

Click on the *Power Meter* tab of the *Power Management Properties* window to show the battery charge meter. You can also display this information by clicking on the battery meter icon displayed on the right side of the Windows taskbar.

3

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### **Advanced Options**

Click on the *Advanced* tab of the *Power Management Properties* window to display the advanced options.







Using the check boxes you can turn the battery icon on the taskbar on or off, and you can install password protection for resuming the system from standby/suspend-to-RAM mode.

Using the drop down menu you can determine the action of the power button so that it generates either a shutdown or a standby/suspend-to-RAM mode.

## Power Management Hot-keys

In addition to the programmable power management, you can use the power management hot-keys to directly control the power consumption of your computer with just a keystroke.

3

	+		Pops up an information box in the upper left corner of the screen
	+		Turns off the display on the built-in screen
	+		Puts the system into standby/suspend-to-RAM mode



*Note that you can also reduce power consumption by decreasing the screen brightness and decreasing the audio volume using the brightness and volume hot-keys.*

## **CHAPTER 4**

### *Connecting Peripherals*

This chapter describes how to connect your computer to peripheral devices using the input/output ports on the rear edge of the unit. To ensure correct operation follow the instructions given in this chapter, and always read the instructions given with the peripheral device as well.

---

#### **Using Peripheral Devices**

---

4

You can connect and use the peripheral devices shown in the overview on the following page. As these devices are manufactured by a third-party, it's good idea to verify that they operate correctly when connected to your computer before you purchase them. Your computer vendor can probably recommend reliable brands that are compatible with your system.



- *Be sure to turn off the computer and the peripheral device before connecting them (except when connecting USB devices or inserting PC cards).*
- *Some devices have to be turned on after the computer is turned on.*
- *Some devices require special drivers or other software before they operate correctly.*

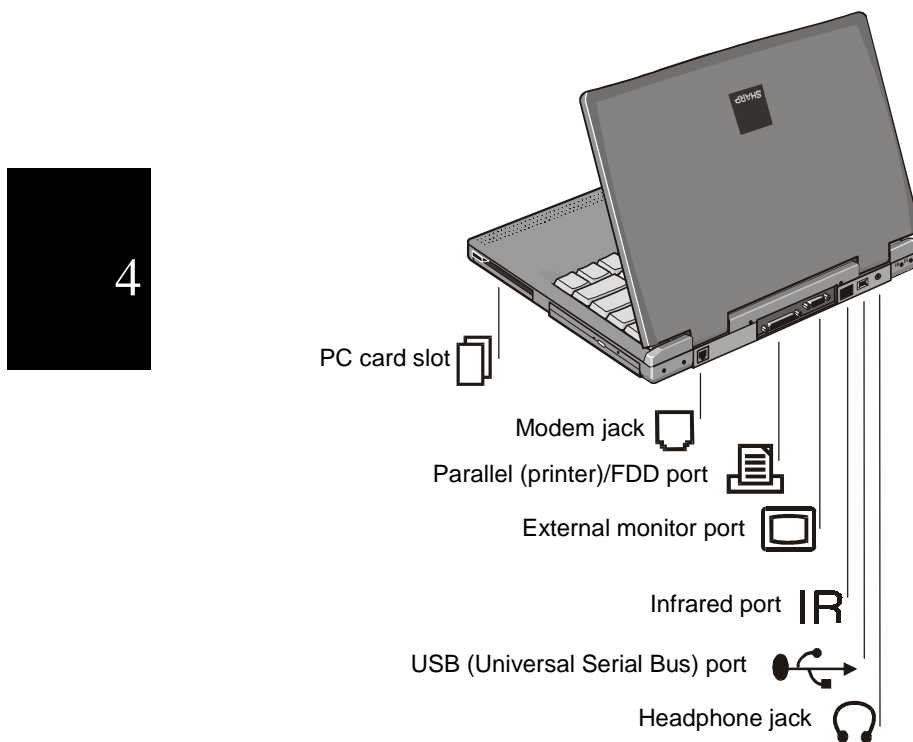
#### **Connecting Peripheral Guidelines**

1. Turn off the computer and the peripheral device (except when connecting a USB device or inserting a PC card).
2. Connect the cable from the peripheral device into the appropriate I/O port on the rear edge of the computer. If the cable has locking screws, tighten them.
3. Turn on the peripheral device and then turn on the computer.



## Connecting Peripherals Overview

The illustration below shows many of the peripheral devices that can be connected to your computer.



For information on using the modem telephone socket and the infrared port, see the following chapter *Chapter5 Communication Functions*.

---

## Using PC Cards

---

Your computer has a PC card slot on the right side. The PC card slot accepts type-I and type-II PC cards. It supports the 32-bit Cardbus standard.

You can use PC cards to add many different features to your computer such as a network adapter, a SCSI host adapter, and so on.



*If you use a PC card to add a feature that already exists on your computer, such as a fax/modem, this may cause problems as the devices compete for limited resources.*



- *Some PC cards can draw power from the system even when they are not being used. If you are operating your computer on battery power, we recommend that you remove PC cards from the PC card slot when you are not using them.*
- *You cannot use a PC card in MS-DOS mode.*

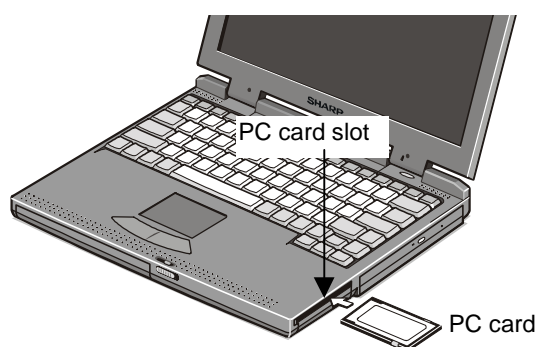
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### Inserting a PC Card

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1. Hold the card with the label side up.
2. Most cards are marked with an arrow to show which of the narrow edges inserts into the slot.
3. Push the card into the slot and press it firmly so that it engages with the connector inside the slot. The PC card edge should be flush with the side of the computer when it is fully inserted.



---

## Configuring a PC Card

1. The Windows operating system immediately detects the insertion of the card.
2. If Windows recognizes the card it automatically loads any drivers required by the card, and allocates any resources that are required by the card. Windows usually displays a *New Hardware Found* dialog box that tells you that the card has been successfully configured. The next time you use the card, Windows configures it automatically without interruption.
3. If Windows cannot recognize the card, or lacks the drivers or software to run the card, an *Add New Hardware Wizard* appears. Follow the prompts of the series of dialog boxes generated by the *Add New Hardware Wizard*. If a dialog box asks for the location of drivers or software, you can click the *Have Disk* button and browse to the location of the software. The next time you use the card, Windows configures it automatically without interruption.
4. When a card is inserted, a PC card icon appears on the taskbar. You can double click the icon to open the *PC Card Properties* window and see the status of the PC card.

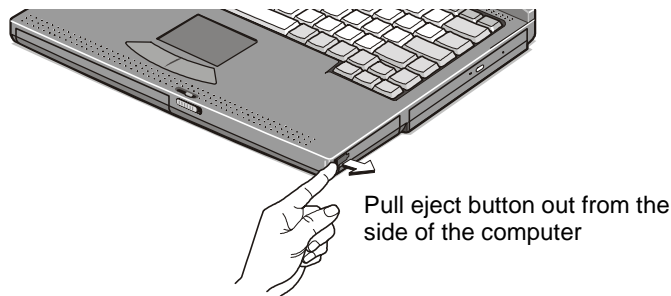


*If you have installed a storage-type memory card, your computer allocates a drive name to the card. Check the My Computer window to identify the card's drive name.*

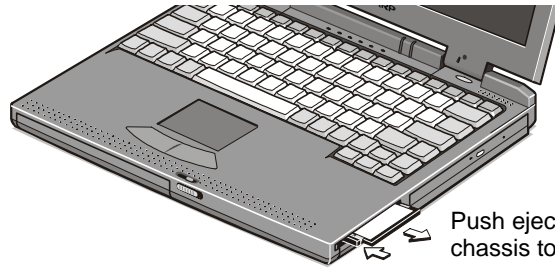
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## Removing a PC Card

1. To remove a card, double click the PC card icon in the taskbar to open the *PC Card Properties* window.
2. Highlight the card and click the *Stop* button. This ensures that any resources reserved for the card are freed up and become available for other devices.
3. Windows displays a message box to tell you that the PC card can be removed.
4. On the right side of the computer, on the left side of the PC card slot, pull the eject card button out from its compartment so that it sticks out from the side of the computer.



5. Push the eject button straight into the computer chassis so that it forces the PC card out of the PC card slot.



Push eject button straight into the chassis to force the card from the slot

6. Pull the card out of the slot.
7. Pull the eject card button out of the computer chassis and fold it back against the side of the computer for safekeeping.

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## Connecting an External Monitor

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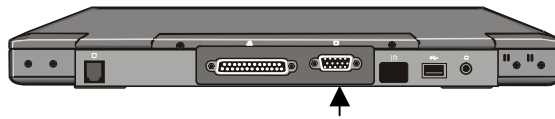
You can connect an external monitor to your computer and then display the video output to either the built-in screen, the external monitor, or a simultaneous display to both the monitor and the screen.

You can even create dual independent displays so that, for example, you can run one application on the built-in screen, and run a different application on the external monitor.

---

### Connecting the monitor

1. Place the monitor in a suitable location and plug it into a power outlet.
2. Connect the video cable from the monitor to the 15-pin monitor port on the rear edge of your computer.



External monitor port

3. Turn on the monitor and turn on the computer.
4. The video output appears on both the built-in screen and the external monitor. See the following section for information on switching the display.

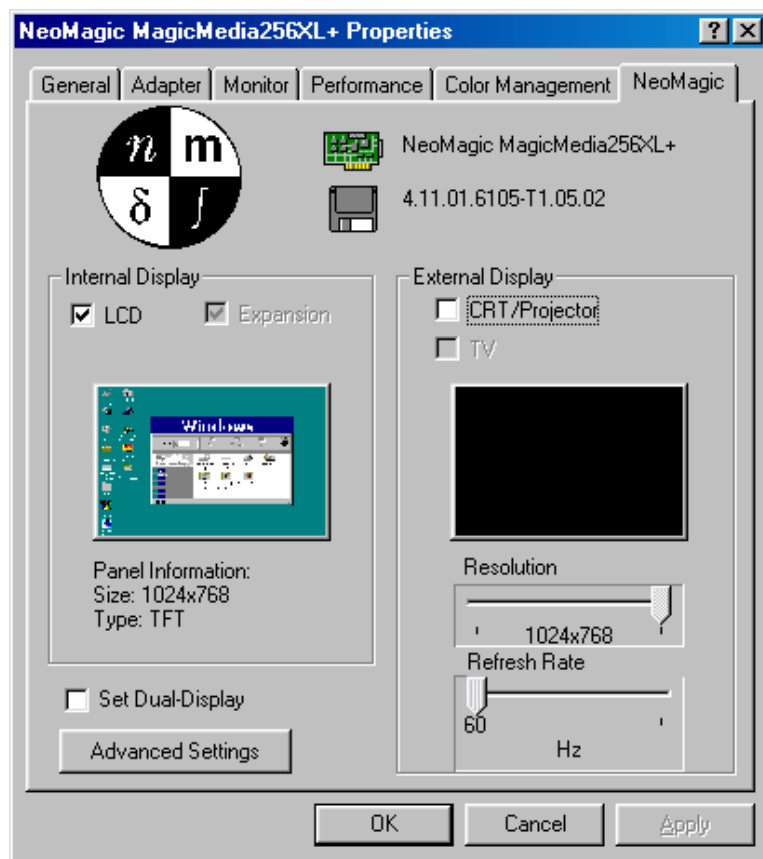
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### Switching the Display

You can switch the display using the *Display Properties* window or the hot keys **Fn+F5**. We recommend that you use the *Display Properties* window initially so that you can make adjustments to the monitor resolution and refresh rate if required.

#### Switching with Software

1. Right click on an empty part of the Windows desktop to pull down a menu and click on *Properties* to open the *Display Properties* window.
2. Click on the *Settings* tab and then click on the *Advanced* button
3. In the *Advanced* window click on the *NeoMagic* tab to display the *NeoMagic MagicMedia* Properties window illustrated below.





4. Use the check boxes to turn on or off the display to the built-in screen (called LCD in this window) and the external monitor (called CRT for Cathode Ray Tube in this window).
5. Use the slider bars to adjust the resolution and the refresh rate of the display on the external monitor.
6. Click on *Apply* and verify that the display is the way you want it. Click on *OK* to exit the *NeoMagic MagicMedia Properties* window.

### Switching with Hot-keys

After switching the display with software in the first instance, you can then use the display switching hot-keys

---

	+		Switch display between the built-in screen, an external monitor, and a simultaneous display
---	---	---	---

---

When you connect an external monitor and turn on the computer, the system defaults to a simultaneous display on the built-in screen.

<b>Press Fn+F5 one time</b>	Video display to built-in screen only
<b>Press Fn+F5 two times</b>	Video display to external monitor only
<b>Press Fn+F5 three times</b>	Video display to both built-in screen and external monitor



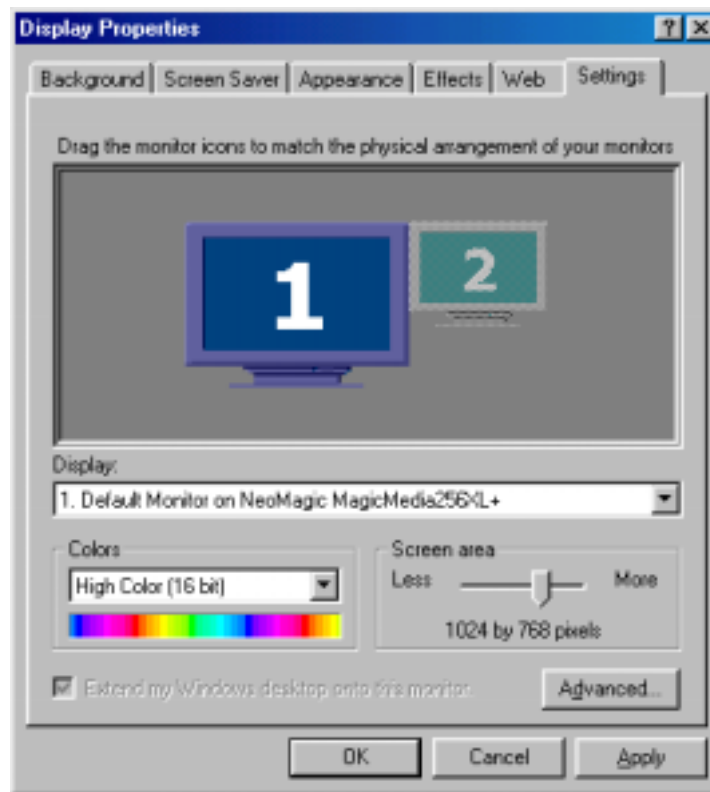
*Don't try to use the display switching hot-keys while your computer is booting. It might cause the system to malfunction.*

## 4

### Dual Independent Displays

The dual independent display feature lets you extend the windows desktop onto the external monitor, so that you can, for example, display one application on the built-in screen and display another application on the external monitor.

1. Connect an external monitor to your system as described above.
2. Turn on your computer. The display appears on both the built-in screen and the external monitor as a default.
3. Right click on an empty part of the Windows desktop and select *Properties* from the pulldown menu.
4. In the *Display Properties* window, click on the *Settings* tab, then click the *Advanced* button, then click the *NeoMagic* tab to display the *NeoMagic MagicMedia Properties* window.
5. Check the *Set Dual Display* check box.
6. Click the *Apply* button. Your computer reports that it has to restart Windows. Click *Yes* to restart.
7. Repeat step 3 above to open the *Display Properties* window.
8. Click on the *Settings* tab. The settings tab window changes to reflect the fact that you have selected a dual independent display, as shown in the following:.



4

9. Click on the monitor marked with a number 2. Windows asks if you want to enable the monitor as an extension of your Windows desktop. Click the *Yes* button.
10. Use the glide pad to drag monitor 2 around monitor 1 so that it is in the same location as the real external monitor is in relation to the built-in screen. The location of the monitors determines on which edge of the built-in screen the screen pointer transits from the screen to the external monitor. For example with the monitors positioned in the illustration above, when you move the screen pointer to the right side of the built-in screen, it disappears from the screen and appears on the left side of the external monitor.
11. Now you can open up applications and drag them from the built-in screen to the external monitor.
12. To turn off the dual independent display, return to the *NeoMagic MagicMedia Properties* window and uncheck the *Set Dual Display* check box. Windows has to restart to complete the operation.

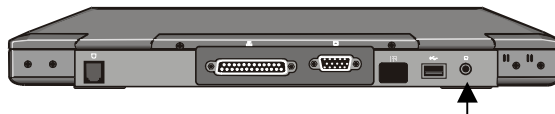


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## Connecting Headphones

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You can connect headphones to your computer so that you can listen to audio in private. When you plug headphones into the headphone jack, the built-in speaker in the computer cabinet is automatically turned off.



Headphone jack

You can adjust the volume by clicking on the loudspeaker icon on the right side of the taskbar, or by pressing the audio volume control hot keys.

## 4

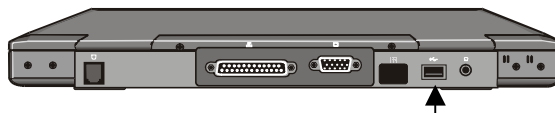
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## Connecting USB Devices

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USB (Universal Serial Bus) devices are increasing in availability, and include many different types of device such as keyboards, pointing devices, digital cameras, and so on.

Many different USB devices can be connected to your computer through the single USB port. All you need to do is connect a USB hub to the USB port on the rear edge of your computer. A USB hub is a USB device that has a series of spare USB ports available for use by multiple devices.



USB Port



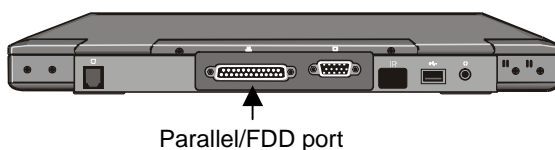
*If you use the USB port to install a pointing device or a keyboard, the built-in glide pad and the built-in keyboard remain active.*

---

## Connecting a Printer

---

Most printers connect through the parallel/FDD port on the rear edge of your computer.



---

### Installing a Printer Driver

After you have connected the printer to your computer through the parallel/FDD port, install a printer driver following the steps below:

1. From the *Start* menu, select *Settings - Printers*.
2. Double-click the *Add Printer* icon. The *Add Printer Wizard* appears.
3. Click *Next*.
4. Confirm *Local printer* is selected and click *Next*.
5. Select the manufacturer and the printer and then click *Next*. If you cannot find the model name of your printer, you have to install the printer driver included with your printer. See your printer manual for more information.
6. Select *LPT1* and click *Next*.
7. Click the *Finish* button. If you have checked the *Print Test Page* box, make sure that the printer is ready before clicking the *Finish* button.

### Parallel Port Settings

The parallel port on your computer can support different kinds of parallel communications, including bi-directional, EPP (Enhanced Parallel Port) and ECP (Extended Capabilities Port). If your printer supports the faster transmission of EPP or ECP, use the system setup utility to change the settings of the parallel port. See *Advanced Page* in *Chapter 8* for more information.

## **CHAPTER 5**

### *Communication Functions*

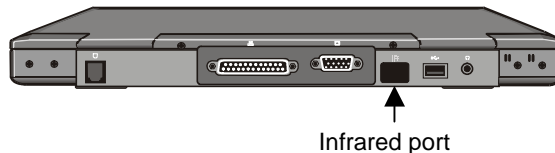
Your computer has two important features that let you establish communications with other computers and devices. The infrared port lets you establish wireless communication with other infrared devices that are at close range. The built-in modem lets you connect to the telephone system so that you can communicate with the whole world through the internet, e-mail, etc.,.

---

#### **Infrared Communication**

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The infrared port is located on the rear edge of your computer. The infrared port supports IrDA 1.1.



Infrared port

You can change the operation of the infrared port by making changes to the Advanced page of the setup utility. See *Advanced Page* in *Chapter 8* for more information.

---

#### **Positioning Infrared Ports**

---

Infrared communications operate over a fairly short range.

Place your computer and the target device so that the infrared ports are directly facing each other and are no more than 30 inches apart (about 1 meter). If the ports deviate from directly facing each other by 15 degrees on either side, or 10 degrees up and down, you might fail to establish communications.

---

#### **Establishing an Infrared Connection**

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As a default, the infrared port is turned off. When the infrared port is turned on, it continually emits infrared signals to try and find a receiver. We suggest that you only turn on the infrared port when you want to use it.



*During infrared communications:*

- *Do not move the computer or the target device*
- *Do not enter standby/suspend-to-RAM mode*
- *Do not use a cellular phone or other IR device near the computer*
- *Avoid strong light such as sunlight or fluorescent light*
- *Disable the screen saver*

1. Before you begin, disable any power management that is operating so that your computer does not enter standby/suspend-to-RAM mode in the middle of an infrared session.
2. From the *Start* menu, select *Settings - Control Panel*.
3. In *Control Panel*, double-click the *Infrared* icon to open the *Infrared Monitor* window.
4. Click on the *Options* tab and check the *Enable infrared communication* box.
5. You can click on the *Status* tab to track if an infrared receiver has been found. Use the *Preferences* tab to set the way the infrared operates, and use the *Identification* tab to name your computer for infrared communications.

## File Transfers

1. To send a file from your computer to another Windows 98 computer, use Windows *Explorer* to browse to the files you want to transfer.
2. Right click the file and select *Send To* from the drop down menu
3. Click on *Infrared Recipient* in the *Send To* menu.
4. Any files that you send are stored in the folder *My Received Files* on the C: drive of the target computer. Files sent from the target computer to your computer are stored in the same location on your computer.



*For more extensive file transfers, or for file transfers to computers that are not running Windows 98, we recommend you use the LapLink communications software that is supplied with your computer.*

---

## Turning Off the Infrared Port

1. From the *Start* menu, select *Settings - Control Panel*.
2. In *Control Panel*, double-click the Infrared icon to open the *Infrared Monitor* window. You can also open the *Infrared Monitor* by clicking the Infrared icon on the taskbar if you have enabled this in the *Preferences* tab of the *Infrared Monitor*.
3. Click on the *Options* tab and uncheck the *Enable infrared communication* box.

---

## Built-in Modem(may not available in some countries)

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- *The built-in modem may not be available in some countries.*
- *You cannot use the built-in modem in MS-DOS mode.*

You can use the built-in modem for data transfer, fax communication, and voice communication. You can also use it to establish a dial-up connection to the internet through an Internet Service Provider.



- *The built-in modem on your computer is designed for regular analog telephone lines. The modem may be damaged if it is connected to a digital ISDN terminal or a digital PBX.*
- *If an unusual device is attached to the line you are connecting to, the modem may not function properly. Remove the device or contact the dealer of the device.*
- *Before connecting to a PBX, consult the PBX maintenance staff or its service company. If the electric characteristics of your PBX are different from those of a regular analog line, the modem will not function properly. If you connect the modem to a digital PBX, both the modem and the PBX may be damaged.*

---

## Connecting the Modem to a Telephone Line

Connect your modem to a telephone line as follows:

1. Turn off your computer.
2. Locate the modem jack on the rear edge of your computer.



Modem jack

3. Plug one end of the telephone cable supplied with your computer into the modem jack. (If the cable is fitted with a core, plug the end of the cable nearest the core into the computer.)
4. Plug the other end of the cable into a wall telephone socket.
5. Turn on your computer.



*Connect to the telephone line directly. Do not use a distributor or allotter.*

---

## Configuring the Modem

You may have already configured your modem during Windows 98 Personal Setup. Otherwise, make the necessary adjustments as shown below.

### Telephony Configuration

1. From the *Start* menu, select *Settings - Control Panel*.
2. Double-click the *Telephony* icon.
3. In the *Dialing Properties* window, type in the details about your location and dialing properties.
4. The drivers under the *Telephony Drivers* tab are pre-installed.

### Internet Connection

Windows 98 has a special *Internet Connection Wizard* to help you get connected to the internet with ease. Simply double-click on the *Connect to the Internet* icon on the Windows desktop. If you plan on connecting to the internet by using the modem to dial an Internet Service Provider (ISP), have your account information and dial-up number ready before you begin the *Internet Connection Wizard*.

5



*In some locations, your Windows desktop may be installed with an icon named *Online Services*. This folder lets you access Online Service Providers who can provide internet connection and other services.*

### Dial-Up Networking

To create other dial-up networking accounts:

1. On the Windows desktop, double-click the *My Computer* icon.
2. Double-click the *Dial-Up Networking* icon
3. Double-click the *Make New Connection* icon.
4. Follow the prompts of the *Make New Connection* dialog boxes to create the new account.

## Hyper Terminal and Phone Dialer

You can find these applications by opening the *Start* menu and selecting *Programs*, then *Accessories*, and then *Communications*. *HyperTerminal* lets you connect to other computer terminals, for example, Bulletin Boards. *Phone Dialer* lets you store and dial numbers for quick access.



*You can also use the LapLink program supplied with your computer to establish modem communications. See the LapLink online help for more information.*

---

## Modem Settings

The settings for your modem are pre-installed in the Windows operating system installed on your computer. In normal circumstances you do not have to make changes to the modem settings. If you need to make changes follow this procedure:

1. From the *Start* menu, select *Settings - Control Panel*.
2. Double-click the *Modems* icon.
3. Use the *General* and *Diagnostics* tabs to display the settings of your modem and make changes if necessary.

5

## Power Management

As for infrared communications, it is a good idea to disable any power management that is running while you are using your modem. Uploading or downloading large files can take quite some time and you might lose data if your computer enters a standby/suspend mode in the middle of a transmission.



## **CHAPTER 6**

### *Changing or Adding Options*

This chapter describes how you can change or add two important optional items to your computer; a port replicator, and a memory card. It also explains how to use the Recovery CD to repair a corrupted hard disk drive.

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#### **Using the Recovery CD**

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If your hard disk drive ever gets corrupted, for example by a computer virus, you can use the recovery CD to return the state of your hard disk to the way it was when your computer shipped from the factory. Of course, you will lose any data that you created and stored on your hard disk drive when you use the recovery CD, therefore we recommend that you always keep up-to-date backups of important data on separate media.



*Using the Recovery CD deletes all the software and data on your hard disk drive and returns your drive to its original state, with just the Windows 98 operating system and the supplied software and drivers. If you don't have backups of the data and software that you have installed on the hard disk, you cannot restore them after using the recovery CD.*

Before you begin, make sure that the drive bay on the right side of the computer is installed with the CD-ROM drive module.

1. Connect your computer to a power outlet with the AC adapter.



*Do not attempt to use the recovery CD with the computer running on battery power. The recovery process takes some time and it is important that the process is not interrupted by loss of power.*

2. Turn on your computer and at the Sharp logo and setup prompt, press **F2** to run the setup utility.

3. In the setup utility, open the *Boot* page and make the CD-ROM the first boot location. See *Boot Page* in *Chapter 8* for more information.
4. Insert the recovery CD into the CD-ROM.
5. Exit the setup utility saving changes.
6. When your computer restarts it boots the recovery program from the recovery CD.
7. The opening screen explains the recovery procedure and asks if you want to continue. Press **Enter** to continue, press **Esc** to cancel.
8. The second screen asks you to disconnect all peripheral devices from the computer. If you do have peripheral items connected, press **Esc** to cancel, turn off your computer, remove the devices and start again. Press **Enter** to continue.
9. The third screen reminds you that the recovery process destroys all data on the hard disk drive. Type **Y** to continue, or type **N** to cancel.
10. The recovery process begins automatically and onscreen arrows and slider bars let you track the progress of the procedure. It takes about 10 to 15 minutes to fully recover the hard disk drive.
11. When the recovery is complete, a prompt appears asking you to remove the recovery CD-ROM from the CD-ROM drive and to press any key to restart your computer.
12. When your computer restarts, you might like to run the setup utility once again and change the boot priority in the *Boot* page back to its usual setting.
13. Windows may have to re-install some software or drivers. Follow the screen prompts of the *Add New Hardware Wizards* as they appear. Your computer may have to restart after the new drivers are installed.
14. When your computer restarts, you are presented with the *Windows Setup Wizard* program that is described in *Chapter 1*. Follow the steps of the program and your hard disk recovery is complete.

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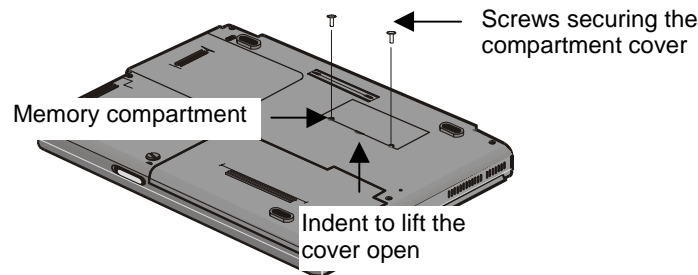
## Adding a Memory Module

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Your computer comes complete with 64 MB of main memory. This is plenty of memory for most applications. However, if you want to enjoy the increased performance that extra memory can bring, you can easily add a memory module to your system using the spare memory compartment in the base of your computer.

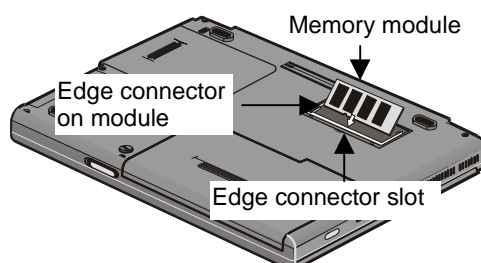
The memory compartment can be installed with an industry-standard SODIMM (Small Outline Dual In-line Memory Module). You can install a memory module with 16 MB, 32 MB, 64 MB or even 128 MB in the memory compartment. Follow the steps below.

1. Turn off your computer, disconnect the AC adapter, and close the upper cover.
2. Turn your computer over and locate the memory compartment cover and the two screws that secure the cover in place.



6

3. Use a small, phillips-head screwdriver to remove the two screws. Lift the cover from the memory compartment using the indent on one side of the compartment cover.
4. Hold the memory module over the memory compartment. The edge connector on the module is divided into two unequal parts and the edge connector slot inside the memory compartment is also divided into two unequal parts. Position the module so that the edge connector on the module matches the edge connector slot in the compartment.
5. Hold the module at a slight angle to the base of the unit and insert the edge connector into the edge connector slot.



6. After the module is inserted into the slot, press it down flat into the compartment so that the spring latches inside the compartment grip the edges of the memory module and hold it in place.
7. If you are removing an old module, press these same spring latches apart so that the memory module pops out of the compartment and then pull the edge connector of the module free from the edge connector slot.
8. Replace the compartment cover and secure it with the two screws.
9. When you restart your computer, press the **Esc** key or the **F2** key when you see the Sharp logo and setup prompt. You can verify that the new memory is installed and functional by checking how much System RAM is displayed on the Diagnostic screen or on the *Main* page of the setup utility.

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## Using the Optional Port Replicator (may not be available in some countries)

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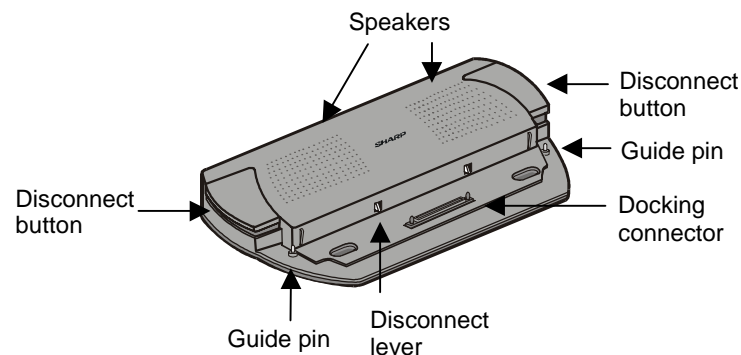
The optional port replicator (model CE-DS02) provides a convenient “parking place” for your computer on your desktop or working area. It duplicates the ports on the rear edge of your computer and adds extra ports as well. You can leave peripheral devices permanently connected to the port replicator. When you dock your computer to the replicator, all the devices are instantly available.

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### About the Port Replicator

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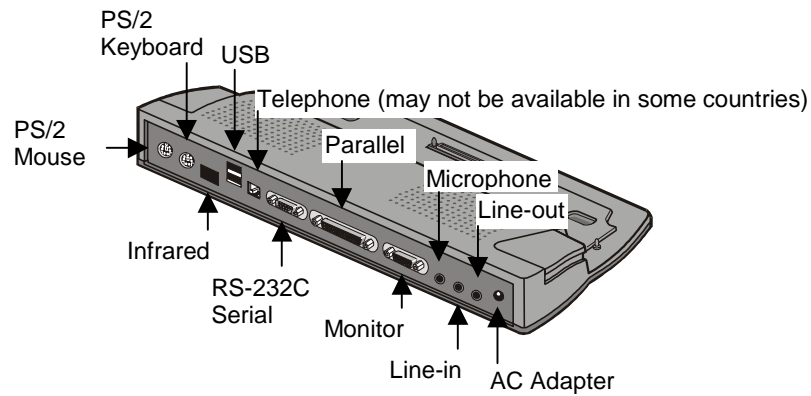
The port replicator is a plug and play device. It supports cold and warm docking. Cold docking means that you must turn off your computer before docking it to the port replicator. Warm docking means that you must suspend your computer (press the hot keys **Fn+F12**) before docking it to the port replicator. When you restart or resume your computer, Windows will automatically configure the devices that are connected to the replicator and automatically assign resources as they are required.



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## Port Replicator Ports

The port replicator ports are all located on the back side.

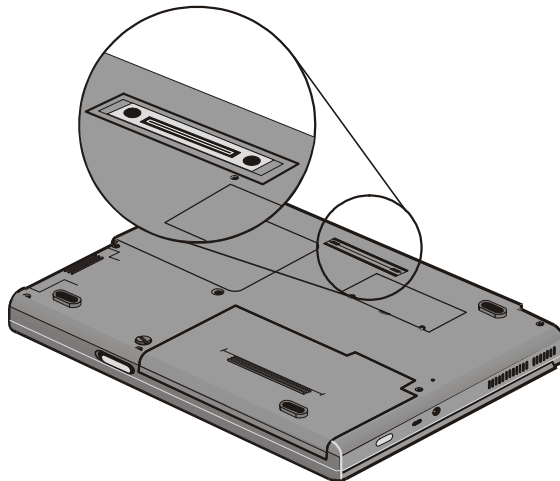


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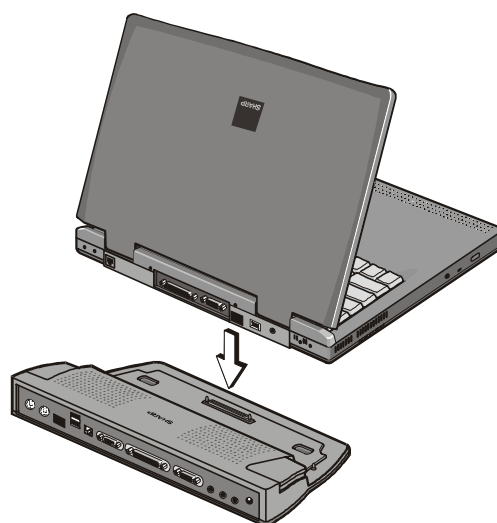
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## Docking and Undocking

Your computer has a connector in the base of the unit that automatically engages with the docking connector on the port replicator. The connector on the base of the computer is protected by a spring-loaded cover. The cover opens automatically when you dock the computer with the port replicator.

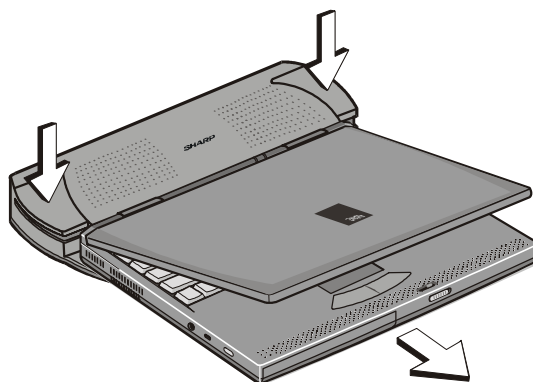


Before docking your computer to the port replicator, either turn off the computer or suspend the computer by pressing the hot keys **Fn+F12**. After the computer is shut down or suspended, install the computer in the port replicator. The guide pins ensure that the computer is positioned correctly. Restart your computer by pressing the power button, or resume from the suspend mode by pressing any key.



6

To undock the computer, turn off or suspend the computer, press down on the two disconnect buttons to disconnect the computer, and then lift the computer from the port replicator.



## **CHAPTER 7**

# *Security Features*

This chapter describes how to protect your computer against unauthorized use, and theft.

---

### **Passwords**

---

Setting a password will help protect against unauthorized access to your computer. When password protection is correctly set, you can leave your computer turned off or in standby/suspend-to-RAM mode. No unauthorized users can restart the system without typing in the correct password.



*If you lose or forget your password while password protection is enabled, you lose access to your computer. Make sure you select a password that you will not forget, or keep a record of your password in a secure place. Otherwise, you must ask your dealer for assistance.*



*If you enter a wrong password three times, the message System Disabled appears. Press the power switch to turn off the computer, turn it on again, and enter the correct password.*

7

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### **Supervisor Password and User Password**

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Your computer supports two different levels of password security; Supervisor password and User password. A User password cannot be set unless a Supervisor password has already been activated. When a Supervisor and a User password are set, the holder of the User password has limitations on the use of the computer, that are controlled by the holder of the Supervisor password.

The following items can only be changed if you know the Supervisor password.

- Set or change the Supervisor Password
- Set a password on boot



- Change diskette access

---

## Setting the Password in the Setup Utility

1. In the *Security* menu of the setup utility, select *Set Supervisor Password* or *Set User Password* and press **Enter**.
2. Type your password (up to eight characters), and press **Enter**.
3. Type the same password again, and press **Enter**.
4. When the confirmation message appears, press **Enter**.
5. Press **Esc** and select *Exit Saving Changes*.
6. Press **Enter** twice. The system restarts and asks the password you have set.

### If you use the computer personally

We recommend that you set the supervisor password. You can prevent other people from using your computer by enabling *Password on boot* in the *Security* menu of the setup utility.

### If you share the computer with others

We recommend that a person who administers the computer sets both supervisor and user passwords and lets the other people know only the user password.

## 7

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## Changing or Deleting the Password

1. In the *Security* menu of the setup utility, select the password item you want to delete and press **Enter**.
2. Type your current password, and press **Enter**.
3. To change the password, type in the new password and press **Enter**. To delete the password, just press **Enter**.
4. To change the password, type the new password again and press **Enter**. To delete the password, just press **Enter** again.
5. When the confirmation message appears, press **Enter**.
6. Press **Esc** and select *Exit Saving Changes*.
7. Press **Enter** twice. The system restarts.

## Password Requirements

If you have enabled *Password on boot* in the *Security* page of the setup utility, the system will ask for a password when the system is started. If a user password is entered, then the user has limited access to the floppy disk drive as set by holder of the supervisor password.

When the setup utility is opened, a password is required. If a user password is entered, the user does not get access to the *Advanced* page of the setup utility. On the *Security* page of the setup utility, the user cannot get access to the *Set Supervisor Password*, the *Password on boot*, or the *Diskette access* items.

---

## Setting a Password for Standby/suspend Resume

Use the Windows *Power Management Properties* program to set a password that must be entered in order to resume the system from a standby/suspend-to-RAM mode. If you have already installed a Windows password you can skip steps 1-4.

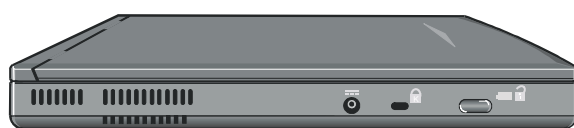
1. From the *Start* menu, select *Settings - Control Panel*.
2. In the *Control Panel*, click on the *Passwords* icon to open the *Passwords Properties* windows.
3. Use the *Change Passwords* tab to install a password for windows.
4. You need to restart your computer to complete the password installation.
5. Return to the *Control Panel*. Double-click the *Power Management* icon to open the *Power Management Properties* window.
6. Click on the *Advanced* tab. Check the box marked *Prompt for password when computer goes off standby*.

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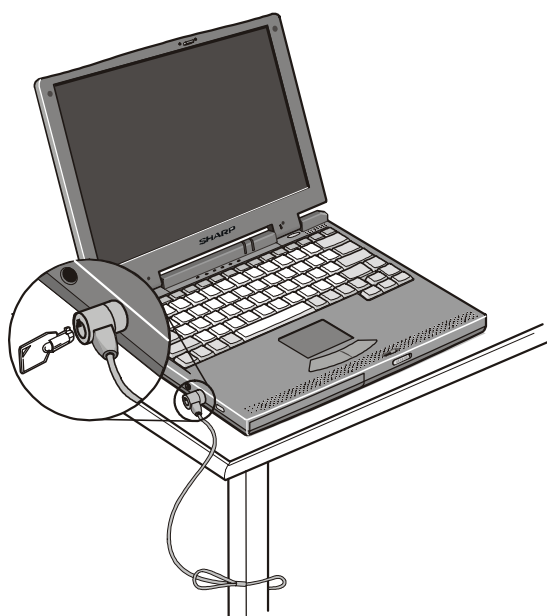
## Using a Security Cable

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You can prevent theft by connecting a laptop security cable to a fixed object and locking the other end of the cable in the slot on the left side of the computer.



Slot for security cable



## **CHAPTER 8**

### *Setup Utility*

This chapter describes how to run the setup utility to change settings on your computer.

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#### **Running the Setup Utility**

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With the setup utility, you can customize the system configuration information, such as time and date, port assignments, passwords, or power management settings. The information you have specified is saved in a special area called CMOS RAM, which the system reads every time you turn on the computer.

---

#### **Contents of the Setup Utility**

The setup utility consists of six menu pages, as follows:

- **Main:** Basic system configuration
- **Advanced:** Device interface configuration (I/O ports, etc.)
- **Security:** Password settings
- **Power:** Power management (battery saving settings)
- **Boot:** Defines where the system boots from
- **Exit:** Exit the setup utility or return to the default values

8

---

#### **Entering and Exiting the Setup Utility**

1. Turn on the computer.
2. When the Sharp logo appears with the prompt *Press <Esc> for diagnostic screen, <F2> for Setup*, press **F2**.
3. Change the desired settings.
4. Press **Esc** to select the *Exit* Page.
5. Select one of the exit methods, and press **Enter**.

6. When the message *Setup Confirmation* appears, press **Enter** again. The system restarts.



*To turn off the computer when the setup utility is open, press the power button.*

---

## Using the Setup Utility

To navigate through the different menus, you can use the following keys:

Use the **Left** and **Right** cursor arrow keys to choose the pages from the main menu bar across the top of the screen.

Use the **Up** and **Down** cursor arrow keys to select the items on each page.

Use the **Space bar** or the **Plus** key to cycle forwards through the values that can be installed for each item.

Use the **Minus** key to cycle backwards through the values that can be installed for each item.

Use the **Esc** key to display the *Exit* page of the setup utility.

Use the **F9** key to install the items of the setup utility with default values.

Use the **F10** key to save the changes and exit the setup utility.

On items marked with a triangular pointer ( ▶ ), press **Enter** to display a sub-menu. Press **Esc** to close the sub-menu and return to the original page.

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## Main Page

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**System Time** Defines the system time, using the format *hour:minute:second* (24-hour format). The **Tab** key moves the cursor, and the **Space bar** and the **Plus** and **Minus** keys change numbers.

**System Date** Defines the system date. The **Tab** key moves the cursor, and the **Space bar** and the **Plus** and **Minus** keys change numbers.

**Diskette A** Always set to *1.44MB,3½*. *You cannot change this item.*

**Diskette B** Lets you enable the floppy disk or define it as *Not Installed*. To use it, set this item to *1.44MB,3½*".

**Primary Master** Press **Enter** to display the primary master sub-menu. *Type* is set to *Auto* so that the system automatically detects the hard disk drive in your system. Press **Esc** to return to the *Main* page.

**Secondary Master** Press **Enter** to display the primary master sub-menu. *Type* is set to *Auto* so that the system automatically detects the CD-ROM drive in your system. Press **Esc** to return to the *Main* page.

**Display Device Selection** This item determines where the video is displayed when the system is first started. It is recommended to leave this at the default value *LCD/CRT*.

**Resolution Expansion** If you enable this item, the system will add extra pixels to screen resolutions that are less than 1024x768 so that they occupy the whole area of the built-in display. Note that resolution expansion causes some distortion of the image on the screen.

**PS/2 Mouse** Enables or disables the glide pad built into your system.

**Boot Options** Press **Enter** to display the Boot Options sub-menu. If *Summary screen* is *Enabled*, the system shows a hardware summary at start-up time. If *Quiet boot* is *Enabled*, the system displays the Sharp logo screen. Press **Esc** to return to the *Main* page.

**System Memory** Shows the size of conventional memory for starting MS-DOS.

**Extended Memory** Shows the size of extended memory beyond 1 MB.

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## Advanced Page

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**Serial port** Sets the RS-232C serial port (only available on the optional Port Replicator), selecting the base I/O address. *Enabled* means that you can set the item yourself. *Auto* means that the item is automatically assigned. *Disabled* means that you cannot use the port.

**IrDA port** Sets the infrared port, selecting the I/O address and IRQ channel, and the DMA channel. *Enabled* means that you can set the items yourself. *Auto* means that all the items except the mode are automatically assigned. *Disabled* means that you cannot use the port. Set to *Auto* during normal use.

**Parallel port** Sets the printer port, selecting the mode, the base I/O address, and the IRQ channel. *Enabled* means that you can set the items yourself. *Auto* means the items except the mode are automatically assigned. *Disabled* means that you cannot use the port.

**Mode** Specifies the LPT port mode: *Bi-directional*, *ECP* (Extended Capabilities Port mode), *EPP* (Enhanced Parallel Port mode) or *Output only*. If you set the mode to ECP, you can also select a DMA channel.

---

## Security Page

---



*See Chapter 7 for detailed information on setting passwords in the Security page. Under some password settings, not all items are available to all users.*

**Set Supervisor Password** Defines the supervisor password (up to eight characters).

**Set User Password** Defines the user password (up to eight characters). You cannot set the user password unless you have set the supervisor password.



*If you lose or forget your password while password protection is enabled, you lose access to your computer. Make sure you select a password that you will not forget, or you keep a record of your password in a secure place. Otherwise, you must ask your dealer for assistance.*

**Password on boot** Defines whether the system requires passwords during the boot process. *Enabled* means that you need to input a password to continue.

**Diskette access** Specifies who can access the floppy disk drive.



---

## Power Page

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Because your computer supports ACPI (Advanced Configuration and Power management Interface), a powerful feature of the Windows 98 operating system, the power management for your system is controlled by the Windows OS and the items on this page have no function. See *Chapter 3* for information on using the Windows *Power Management Properties* program.

If you install your computer with an alternative operating system that does not have ACPI (for example Windows NT 4.0), you can use the items on this page to manage power on your system.

**PM Control** Lets you enable or disable all the power management, or have it operate when you are using *Battery Powered Only*.

**Power Savings** Lets you set *Maximum Battery Life* (short timeouts for aggressive power management), *Maximum Performance* (long timeouts for relaxed power management), or *Customized* (lets you define your own timeout settings using the items below).

**Auto Suspend Timeout** If you have chosen *Customized* for the *Power Savings* item, use this item to set the timeout for suspend mode.

**Hard Disk Timeout** If you have chosen *Customized* for the *Power Savings* item, use this item to set the timeout for a hard disk drive powerdown.

**Video Timeout** If you have chosen *Customized* for the *Power Savings* item, use this item to set the timeout for the built-in display to powerdown.

**Battery Low Suspend** If you enable this item, the system will automatically enter the suspend mode when battery charge is critically low.

**Resume on Modem Ring** If you enable this item, the system can resume from suspend mode when an incoming call is received by the modem.



*The built-in modem may not be available in some countries.*

**Resume on Time** If you enable this item, the system can resume from suspend mode by an alarm set on the computer's realtime clock.

**Resume Time** If you have enabled the *Resume on Time* item, use this item to set the alarm time.

**Cooling Control** Use this item to determine how the system controls the thermal management of your system. If you select *Performance*, the system turns on the cooling fan first when cooling is required. It only throttles the processor if further cooling is required. If you select *Silence*, the system throttles the processor first when cooling is required. It only turns on the cooling fan if further cooling is required.

---

## Boot Page

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The *Boot* page shows the order of preference your system follows when it seeks an operating system at start-up time. To change the order, highlight an item and then use the **Plus** and **Minus** keys to move it up or down the list.

---

## Exit Page

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**Exit Saving Changes** Saves the settings you have changed and exits the Setup Utility.

**Exit Discarding Changes** Exits the Setup Utility without saving the changes you made during the current session.

**Load Setup Defaults** Returns the values of all items to default. To exit, select one of the above items.

**Discard Changes** Returns the values of all items to the values you last saved.

**Save Changes** Saves the settings you have changed.

# Appendix 1: Troubleshooting

This appendix describes how to troubleshoot problems with your computer.

---

## Common Problems

Problems with your computer can be caused by something as minor as an unplugged power cord or as major as a damaged hard disk drive. The information in this troubleshooting section is designed to help you find and solve minor problems. If you still have a problem after trying all the suggested remedies in this chapter, contact your dealer.

The problems that you might encounter can be divided into two basic categories: hardware and software. Hardware problems can be further divided into being of an electrical or a mechanical nature. You will know you have a hardware problem if, for example, the screen is blank, or the computer cannot recognize the disk drives.

Software problems can occur at several levels. Both your operating system and your software application programs are capable of generating errors and error messages. If you encounter a software error, try to determine if the error message is from your operating system or from an application program, and refer to the appropriate manual for possible remedies.

You can also refer to the Windows 98 manual or Windows Help program to solve the problem. To access the Help program, select *Help* from the *Start* menu. It also gives you *Troubleshooting* tips and an *Index*.

Successful troubleshooting is the result of careful observation, deductive reasoning, and an organized approach to solving the problem. If you encounter a problem, begin by performing a careful visual inspection. Check the exterior of the computer first. If no lights are displayed, check the battery charge or power outlet, the plug and power cord, and any power switches that may affect your computer. If the computer has been connected to any peripheral devices, look for loose or disconnected cables. You may also need to check the fuses and breakers in your electric box. A few common problems and suggested solutions are presented in the examples which follow.



---

## Trouble when Starting

### Question: Why doesn't the power switch function?

- Make sure the AC power cable is correctly connected to a live power outlet.
- If the computer is operating with batteries, the batteries may be discharged. Connect the computer to a power outlet.

### Question: Why doesn't Windows start?

- Check whether the floppy disk drive unit contains a non-system disk. Remove the floppy disk from the drive, and press any key.
- If you are attempting to boot from the floppy disk drive, check to make sure the disk is fully inserted and seated into the drive.
- If you attempt to boot from the floppy disk drive, check whether the *Floppy Diskette* is set to the first in the *Boot* menu of the setup utility.
- Check whether the CD-ROM drive unit contains a bootable CD-ROM. Remove the CD-ROM from the drive and press any key.

### Question: Why do I get a non-system disk or disk error message?

- You may have inserted a non-bootable disk in the floppy disk drive (either a defective disk or one without an installed operating system). Remove the disk.
- If this message is issued when you attempt to boot from your hard disk drive, insert a bootable disk into the floppy disk drive unit and check the status of your hard disk drive.
- Check whether the items *Diskette A:* and *Primary Master* are correctly set in the *Main* menu of the setup utility.

### Question: Why do I get the message *Operating system not found*?

- If you get this message when starting from the hard disk, insert the boot up disk into the floppy disk drive unit; then check the condition of the hard disk.
- Enter the setup utility and check the status of the hard disk. Check the size of the hard disk and make sure the item *Primary Master* of the *Main* menu is set to *Auto*.

---

## Trouble with the Display

### Question: Why is the screen blank?

- Press any key to see if any power management feature has turned off the screen to save power.
- See the power indicator to check whether the computer is powered.
- If you are using a battery pack, make sure it has a charge remaining
- Make sure the LCD screen is selected as the display by pressing **Fn+F5**.
- Check the brightness controls for your display by pressing **Fn+F7**.
- Check whether the back light is on by pressing any key.
- If you still have the problem after trying the above, press the power switch for more than four seconds to turn off the system. Five seconds later, turn the computer on.
- If you cannot power off the system with the above procedure, use the reset switch on the bottom of your computer and turn off the system. Wait five seconds and turn the computer back on.

### Question: Why does the external monitor display nothing?

- Confirm the monitor is turned on.
- Confirm the monitor is connected correctly.
- Make sure an external monitor is selected as the display by pressing **Fn+F5**.

### Question: Why is the image on an external monitor display distorted?

- Confirm the monitor is connected correctly.
- Make sure the CRT is not near any electric devices having strong magnetic fields such as a TV set or radio.
- Do not share an outlet with a TV set or radio.
- Make sure the value of the *Screen area* in the *Display Properties* is lower than the resolution of the CRT monitor.

---

## Trouble with the Hard Disk

### Question: Why can't I read or write data to/from the hard disk?

- Confirm the drive and file names are correct.
- Confirm the hard disk has sufficient free space.
- The hard disk in your computer is formatted with FAT32. You cannot read or write data formatted in other operating systems, which are not FAT 32 compatible. Applications that are not compliant with FAT32 may not work properly.

---

## Trouble with Floppy Disks

### Question: Why can't I read/use a floppy disk?

- Confirm the floppy disk drive unit is correctly inserted into the optional floppy disk drive box or internal drive bay.
- Confirm the floppy disk is inserted correctly.
- The floppy disk may not be formatted or could be corrupted.
- If you cannot write to a floppy disk, the disk may be write-protected. Eject the disk and ensure that the write-protect tab covers the detection hole.
- If you cannot write to a floppy disk, the disk may be full. Use another disk.
- Confirm the item *Diskette A:* is 1.44MB, 3 1/2 in the *Main* menu of the setup utility.
- Check whether the supervisor has set a password prohibiting access to the floppy disk drive in the *Security* menu of the setup utility.

---

## Trouble with the Keyboard or Glide Pad

### Question: Why doesn't the keyboard or the glide pad function?

- Perform a software reset by pressing **Ctrl+Alt+Delete**.
- If you cannot perform a software reset, press the power switch for more than four seconds to turn off the system. Five seconds later, turn the computer on.
- If you still cannot turn off the system with the power switch, use the reset switch on the bottom of your computer to turn off the system. Five seconds later, turn on the computer by pressing the power switch.

**Question: Why doesn't the glide pad function correctly?**

- Confirm the surface of the glide pad is completely dry and free from dirt and grease.
- Confirm the item *PS/2 Mouse* in the *Main* menu of the setup utility is enabled.

---

**Trouble with Peripherals**

**Question: Why don't expansion or peripheral devices function?**

- Confirm they are correctly connected to your computer.
- Confirm if drivers necessary for operating ports on the devices are installed.
- There may not be a free IRQ (Interrupt). Free up an IRQ from a built-in device.

**Question: Why can't I print?**

- Make sure the printer is turned on.
- Check whether the printer is connected correctly.
- Check whether the printer has enough paper.
- Check whether the printer driver is installed.
- Make sure *Parallel Port* in the *Advanced* menu of the setup utility is set correctly.
- From the *Start* menu, select *Settings - Printers* to confirm your printer is installed here. If not, click *Add Printer* to install your printer.
- See also the Windows Help.

**Question: Why doesn't the device connected to the RS-232C serial port (only on the optional port replicator) function?**

- Confirm the device is correctly connected to the port replicator with an appropriate cable.
- Confirm the port replicator unit is connected correctly.
- Confirm the application program is compliant with the RS-232C standard interface.
- Confirm the COM1 port is not disabled using the following procedure.
  1. In the *System Properties* dialog box, select *Device Manager*.
  2. Double-click *Ports(COM&LPT)*; then, *Communications Port (COM1)*.
  3. Make sure the item *Disable in this hardware profile* is unchecked.
- Confirm the COM 1 port is not used by another applications.

- Confirm the item *Serial Port* is set appropriately in the *Advanced* menu of the setup utility.

---

## Trouble with Communication

### **Question: Why can't I communicate through the built-in IR port?**

- Confirm the IR port of your computer is lined up with the IR port of the other device. These ports should be no more than 30 inches (1 meter) apart without any obstacles.
- Confirm that IR communication is turned on in the *Infrared Monitor* window.
- Confirm the item *IrDA port* is set correctly in the *Advanced* menu of the setup utility.
- Turn off power management and screen savers.
- Do not use the IR port under intense fluorescent light or near cellular phones.

### **Question: Why can't I communicate through the built-in modem?**

**(The built-in modem may not be available in some countries)**

- Confirm the telephone line is properly connected to the modem telephone socket.
- Confirm the dial settings of Windows 98 or communication software are matched with the telephone line (Example: To access an outside line, first dial "7" for local, "1" for long distance).
- Confirm the network configuration is appropriate.
- Confirm the user name or password is correct.
- Confirm the COM port in the communication software is set appropriately.
- Turn off the power management and screen savers.



---

## Other Troubles

### Question: Why is the date and/or time incorrect?

- Correct the date and time using the *Date/Time* icon in the Windows Control Panel or the *Main* menu of the setup utility.

### Question: Why can't I produce sound?

- Check the volume control with the **Fn+F9** hot keys.
- Click the speaker symbol on the taskbar and check the Windows volume control.

### Question: Why can't I use a hardware device?

- Make sure the hardware device is not disabled using the following procedure.
  1. In the *System Properties* dialog box, select *Device Manager*.
  2. Select the device you cannot use.
  3. Click *Properties*, and uncheck *Disable in this hardware profile*.

## Appendix 2: Care & Maintenance

This appendix provides you with information on how to maintain your computer in excellent working condition.

---

### Cleaning the Computer

#### Cabinet

Apply a small amount of mild cleaning solution to a dry, lint-free cloth and wipe the cabinet with the cloth.



- *Do not use alcohol, benzene, thinner or other strong chemical agents or solvents that may damage the cabinet.*
  - *Never clean the computer while it is turned on.*
- 

#### Screen

The surface of the screen may become smeared and accumulate dust during use. Avoid touching the screen with your fingers when using the system. Gently wipe the surface of the screen with a soft cloth that has been dipped in a mild detergent solution and squeezed dry.

#### IR Port

Dust on the IR port will interfere with data transfer. Wipe the port clean with a soft, dry cloth.

#### Glide Pad

Wipe the glide pad with a soft, dry cloth.

Care

---

### Traveling with the Computer

This computer is designed for portability. For safety and convenience when traveling, please follow these guidelines.

- Before traveling, back up your data on floppy disks or other external media.
- Bring an extra copy of your backup data.
- Do not leave the floppy disk drive in the optional floppy disk drive box connected to the system when you are traveling.

- Do not travel with the computer powered on. This may result in loss of data and/or damage to the hard disk drive.
- Disconnect the AC adapter from the computer.
- Fully charge the battery pack and bring the AC adapter and the AC power cord.
- Avoid sudden shocks or extreme vibration.

Care

## Appendix 3: Specifications

Parts		Specifications
CPU		Mobile Pentium III Processor (frequency differs by configuration)
Secondary cache		256 KB (Integrated with CPU)
ROM		Including system BIOS and VGA BIOS
RAM	System	SDRAM 64 MB (expandable to 192 MB)
	Video	6 MB
Display	Panel	Active Matrix (TFT) color LCD
	Video controller	NeoMagic NM2380
Keyboard		IBM compatible keyboard
Pointing device		Glide pad (touch-sensitive control pad with 2 buttons )
Drive	Hard disk	IDE interface
	Floppy disk	3.5", 1.44MB/720KB
PC card slot		Type II x 1 (PCMCIA 2.1 compliant) CardBus compliant
Audio system		Monaural microphone, monaural speaker, sound system compliant with AC97
I/O ports	Audio	Headphone jack
	Video	External monitor port
	Others	USB port, modem jack, parallel/FDD port
Infrared		IR port (IrDA:115Kbps/4Mbps)
Modem (may not be available in some countries)		Data: 56Kbps(receive), 33.6Kbps(send), Fax: 14.4Kbps,
Power	AC adapter	100-240V, 50-60 Hz
	Battery	Rechargeable lithium ion battery
	Battery life	Approximately 2 hours <i>Battery life may vary depending on usage</i>
	Battery charging time	Turned off/suspend mode: about 2 hours Turned on: about 4 hours <i>Charging time may vary depending on usage</i>
Dimensions	Computer	12.04" wide x 9.48" deep x 1.08" high (306mm x 241mm x 27.4mm) 4.58 lbs (2.08 Kg)
	FDD box	5.51" wide x 5.86" deep x 0.59" high 140mm x 149mm x 15mm
Temperature Environment	Operating	50°F to 95°F (10°C to 35°C)
	Humidity	20% to 80% (non-condensation)

**Options**

- AC adapter..... CE-A80V
- Battery Pack ..... CE-BL08
- Floppy Disk Drive Box ..... CD-FC01
- Port Replicator ..... CE-DS02

(May not be available in some countries)



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## Unpacking the Computer

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Your computer and its accessories come securely packaged in a cardboard shipping carton. As you unpack your computer, please be sure to check for all of the following items which should be included:

- Notebook Computer
  - AC Adapter
  - AC Power Cord
  - Floppy Disk Drive Unit
  - Modem Cable (may not be available in some countries)
  - Windows 98 Pack
  - Operation Manual
- \* Carefully inspect each component to make sure nothing is missing or damaged. If any of these items is missing or damaged, notify your dealer immediately. Be sure to save the shipping materials and carton in case you need to ship or store the computer in the future.
- \* Some brochures or supplements may be contained other than the above.
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